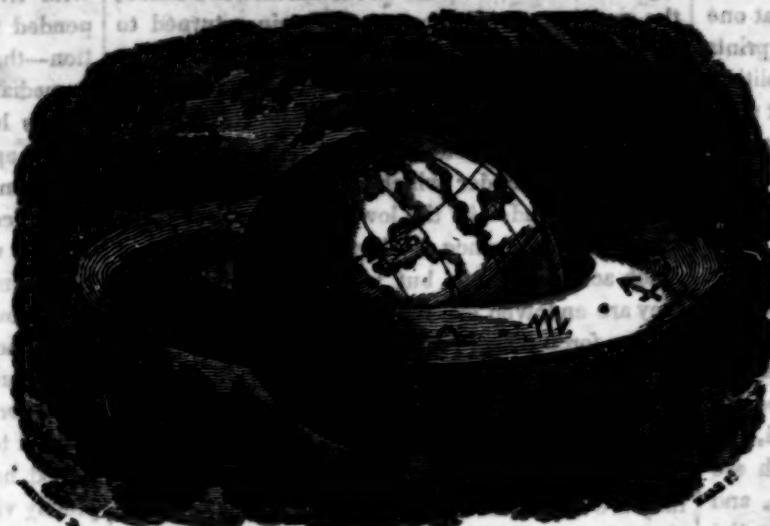


THE ZODIAC.



DEVOTED TO SCIENCE, LITERATURE AND THE ARTS.

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No. 6.

(For the Zodiac.)

DREAM-LAND.

Could we but mould our dreams at will,
And keep them free from harm or ill,
How pleasant it would be,
To deem our waking hours but dreams,
And *that*, our life which now but seems
A baseless fantasy.

It may not be—the power's denied
To sway the thoughts that ever glide,
Without control in sleep;
'Twould make another world our own,
Where bliss and joy would reign alone,
With nought to make us weep.

From thought 'twould drive all sense of pain,
Which here on earth is still the stain,
O'er all things thrown by sin.
An Eden of this world 'twould make,
And draughts of joy the thirst would slake,
That hides, each breast within.

The skies no clouds would e'er deform,
The balmy air no wintry storm,
With chilling cold congeal,
But ever placid, calm, serene,
The sunny skies, the landscapes green,
Beauty alone reveal.

Bright eyes would ne'er be dimmed with tears,
The coward there would lose his fears,
The brave become more brave;
The negro freed from slavery's chain,
With joy would roam his native plain,
No more to be a slave.

Caution would ne'er the lover check,
But smiling hope the future deck,
With all her rainbow hues,
Boldly his love he there reveals,
And painting truly what he feels,
Calls to his aid the muse.

Scorning* the airs that win the crowd,
His mistress is no longer proud,
Nor is he formal found.
Banished afar discretion—fear—
Fond joys alone the time endear,
And true delights abound.

Unfelt would there be despot's rule,
Uncared for knave, or brute, or fool,
Still more no notes we'd pay,
Pleasure would imp the wings of time,
Nor should we deem it then a crime,
To idle all the day.



V3

DECEMBER.

And after him, came next the chill December;

Yet he, through merry feasting which he made,
And great bonfires, did not the cold remember:
His Saviour's birth so much his mind did glad.
Upon a shaggy bearded goat he rode,

The same wherewith Dan Jove in tender years,
They say, was nourish'd by the Idæan Mayd;

And in his hand a broad deepe bowl he beares,
Of which he freely drinks an health to all his peers.

Spenser.

The mean temperature of the month at Albany, as deduced from the observations of twenty years, is $28^{\circ}518$. The highest observed temperature was 58° , and the lowest -20° ; giving the extreme monthly range 78° . The average amount of rain and melted snow falling during the month, is 2.336 inches.

(For the Zodiac.)

MILITARY ASPECT OF FRANCE.

HOTEL DES INVALIDES.

The traveller who has the good fortune to form a part of the happy population of a free government, feels the transports of joy at having, after a tedious voyage, once more reached *terra firma*, and at finding himself surrounded by a thousand novelties, which afford a delightful stimulus to his curiosity, for a moment damped in the consciousness that France, sunny and bright though it be, is under the dominion of a military despotism.

Each object that commands his attention seems to bear its stamp. While bristling bayonets and polished tubes without number dance before his bewildered gaze, the unceasing beat of drums and braying of trumpets, fill the air with their martial sounds, he may sigh at these symptoms of "slave-

ry's chains" and deplore the fate of a nation whose liberties are thus crushed and trampled upon; but soon his sympathy is transferred from the multitude to self—his passport is demanded, and from that moment he bids adieu to liberty. So long as he makes that country his sojourn, the police take him under their especial *surveillance*—his every step is dogged, and each house or inn where he may chance to sleep, is noted with a jealous care, as though the fate of empires depended on his movements.

The meanest functionary attached to civil institutions is in some degree *en militaire*; he always possesses at least a pair of mustachios, and some part of his dress is sure to be adorned with gold lace; and among the throngs who pour down the thoroughfares of Paris, almost every other person you meet is decorated with the tri-colored ribbon, a sign that he belongs to the Legion of Honor.—The children of the male sex, are often dressed as lancers, national guards, &c. and the play things of the little toddling heroes are in character with their habiliments. Look at that splendid equipage as it rolls gallantly along the Boulevards—the footman who stands behind is a magnificent negro, clothed in the complete costume of a general officer, the only difference being in the color of the dress, which is of a deep bottle green, including the plumes. After a while, the sober traveller, overcome by the potency of example, imbibes the contagious influence, and insensibly yields to the prevailing fashions. The first symptoms are the appearance of a pair of mustachios, a travelling cap with gold tassels is purchased, and now he meditates on Napoleon. Many a metamorphose of this description have I seen among my young friends, and the excuse in most cases alleged for the change was, "at Rome, &c." That the name and fame of Napoleon should be ever present to the mind's eye is not surprising, for he is continually obtruded on the attention, in one shape or another. If, for instance, such questions as these be asked:—Who constructed that noble pier? the answer is Napoleon. What is that immense building? a granary built by the order of Napoleon. Who is that old gentleman you were conversing with? he was formerly one of Napoleon's favorite officers. What is the name of this singular looking dish? oh! it is a ragout à la Napoleon, and thus the name serves a general reply to a world of inquiries. In the cafe

* From Lady M. W. Montague.

or at the soirée, in the play house or in the diligence, in a word, wherever there is a collection of people the conversation will invariably relate at one period to this extraordinary man; the public prints unceasingly descant on the subject of his political career, and compare the past with the present state of things; innumerable representations of his person exist in all the variety that sculpture, painting, engraving and casting have devised. Among these, the stupendous bronze column in the Place Vendôme takes the lead—it is surmounted by a statue of the hero in his favorite attitude, and the materials of which the whole is constructed, are the melted cannon taken in his successful campaigns. Next in point of importance, come historical pieces and portraits, painted by the celebrated David, and statues and busts executed by Canova, which are placed in the picture galleries of the Louvre, and in other institutions, open to the public. In the streets are to be seen wandering Italians with their stock of plaster casts, the greater part busts and figures of the great hero; he reposes on numberless clocks, in bronze and *or molé*, the windows of print shops are lined with lithographic likenesses, he is glued on *Eau de cologne* bottles, and stands sentinel over half the scented soap in France—he is to be seen at the bottom of soup plates and on the sides of coffee cups—he is found embedded in the folds of pocket handkerchiefs—in short, he is ubiquitous. People have a right to be happy in their own way, and Frenchmen, it appears to me, according to this principle, rejoice in a military despotism—the adoration tendered to the memory of their departed idol, the enthusiasm with which every thing connected with military glory is regarded, and the complaisance, not to say pride, with which they contemplate the enormous army that holds them in thrall, while to supply it with materials the country is drained of the flower of its youth, by the barbarous and tyrannical system of conscription, are indubitable proofs of this truth.—I am further confirmed in the correctness of my assertion, by the good understanding that prevails between the military and civilians, as individuals, a circumstance never observed in those countries possessed of free institutions, where the number of soldiers is large, and employed as a police; when acting as sentinels before public institutions, they are very obliging in conveying information to those who require it, and are equally civil when called upon to warn the unwitting transgressors of their orders. In the streets, likewise, contrary to the usual habits of soldiers, they readily yield the path, and in all respects conform to the rules of politeness observed among civilians.

The costume of the French soldiers of the line, consists of a blue coat and scarlet trowsers, both most inartificially constructed; the accoutrements, on the other hand, are of a superior order; the musket is of great length, the barrel is not browned (the only disadvantage connected with the piece) and is fastened to the stock by means of broad hoops of iron; it is said to carry a ball to a great distance, and with great force; in addition to the bayonet, a short straight broad sword is allowed, which gives the French soldier an immense advantage over his antagonist in those armies where it is not included among the arms of a foot soldier; the knapsack is large and covered with calf-skin, the hairy part exposed to the weather. The personal appearance of the foot soldiers is by no means imposing; they are next to the Esquimaux, perhaps the shortest men in the world; they are chiefly enlisted from the agricultural districts, and their

small size is fancifully attributed to Buonaparte having carried off to the wars all the tall men in France, the greater part of whom never again returned to their families. Whatever may be the cause, the present race are certainly quite under the common height of men in America, and Great Britain, and this fact is readily acknowledged. '*Grand comme un Anglais*,' under which denomination Americans are included by the lower classes, is a common saying in France. They are not possessed of much active strength, but what perhaps is better, they are endowed to a remarkable degree with that passive force which renders them capable of enduring extraordinary privation and fatigue.

The system of drill pursued in the French army appears to be of a very simple kind; but little attention is paid to tactics of a complex nature, as they are not of much practical importance in actual warfare; the main object they consider, is obtained, if the men are able to stick together and wheel round without breaking their columns; in like manner an erect attitude is not insisted upon, consequently their gait is slouching to the last degree, and this fault is enhanced by their often, when off duty, wearing the caps sideways, or much thrown back on their heads, than which nothing can be conceived more slovenly or unsoldier-like.

The discipline is rigorous and severe; the volatile character of their nation, and their proneness to mutiny, require that a firm hand be held over them. Accordingly offences trifling in their nature are inexorably punished with death, hard labor for life in the gallies, or loss of rank. The privates are allowed to settle their disputes by the sword, and the practice of duelling is carried to a great length among their officers, who in the piping times of peace, for want of something better to do, carry on an exterminating warfare among themselves, disabling and killing each other by platoons.

The bands of music attached to the regiments are unrivalled in their way. I have heard the most complicated pieces of music executed in a style that would not disgrace the opera; and it has often been a source of amusement to me to contemplate the old and battered instruments from whence issued these delightful sounds. Many of them are obsolete and correspond in shape to the plates of ancient instruments described in Burnet's history of music. The number of drums attached to each regiment varies from twenty to thirty, and as there are no fifes, the time is marked by certain measures which severally constitute a quick step. I once heard a simultaneous peal from three hundred of these instruments; the fracas was terrific and hardly less endurable than a broadside salute from a frigate; it was upon the occasion of renewing an old and obstreperous custom, by which the King is treated to a grand concert of this kind, on the last day of the year. All the drummers of the army stationed at Paris and its environs were assembled before the Tuilleries, and arranged in the form of a crescent; the drum-major-general, a giant in stature, and surmounted by a bearskin cap, of preposterous dimensions, stood proudly at a considerable distance in front of them—the clothes of this person were so richly embroidered from head to foot, that he looked not unlike a silver statue. After allowing the men a sufficient time to tighten their drums, he gave the signal by waving his silver wand once over his head, which was answered by an astounding roll of some minutes' duration, and succeeded by a variety of quick movements.

Some regiments of the line are preceded, on particular occasions, by females sutlers, who are ga-

ly dressed, and sport small glazed hats, ornamented with tri-colored ribands; a miniature keg is suspended from their necks to denote their occupation—they are usually four in number, and walk immediately in front of the pioneers. The effect is highly pleasing and novel; the ladies themselves appear to enter fully into the spirit of the thing, and step out with military exactness.

The conscription is renewed every seven years, and the unfortunate individual who has drawn the fatal number, is torn away from his home and family without any regard to the circumstances under which he may be placed, unless, indeed, he has the means of purchasing a substitute, when he escapes for that time; but if these be wanting, he is obliged to serve seven years, at the end of which period he too often returns with morals so completely vitiated, as to be ever after unfit for any useful occupation.

As most of the new levies consist of young men whose morals are yet untainted, and affections unseared by intercourse with the world, the degree of unhappiness and mental distress which afflicts them on their removal from their relatives is inconceivable, and the insupportable melancholy which seizes many of them, requires the utmost vigilance on the part of their superiors to check the tendency to suicide, which prevails at this time. That romantic attachment to their country, shewn by the Swiss soldiers, on hearing the *ranz de vaches* sung, and the orders issued by the commander that it should not be sung under penalty of death, must be familiar to every body. The disease caused by that overpowering love of one's native country was at one time thought peculiar to that nation, but it is found to prevail under certain circumstances among every people, and nowhere is it so frequent as in the French army. The termination of this malady, now known under the name of *Nostalgia*, is in many instances mortal; the great bodily weakness, induced by the depressing effects of grief, lays the sufferer open to the attack of fatal diseases; and here I may remark, that it is analogous in its characters to the decay occasioned by disappointment in love; although the killing effects of the latter passion are not as prevalent as poets would make us believe, yet I think that there are many more broken hearts from this cause in the world, than we matter of fact people are willing to allow. Those who are suffering under it are allowed to absent themselves on furloughs of various duration, and it has been remarked that they invariably return to their regiments, not only completely but permanently cured. For the same reason the friends of the conscript are encouraged to visit him in his distant quarters—now the happy soldier may be seen walking in the public gardens, supporting his old mother on one arm, and a pretty sister, or perchance his sweetheart, on the other, both habited in their quaint and picturesque costume, or pointing out to their simple wonder the strange animals who reside in the *Jardin du Roi*, or fatigued with their wandering, he conducts them to the *Champs Elysie*, where reposing under the shade of its magnificent elms they partake of some refreshment, or they stay their steps before Punchinello's stall, whose stale witticisms expended on his wife and cat are more than sufficient to excite uncontrollable merriment in the unsophisticated rustics.

The men who compose the cavalry corps are a size larger than the troops of the line, and their uniforms are more carefully made to fit; but the horses are very inferior animals, they are such as we would denominate ponies. Little attention is

paid to the breeding of horses in France. With the exception perhaps of the Normandy cart horses, the only fine animals to be met with are imported from England. The native breed bear a primitive look, as marked as that of the shepherd or Indian dog, which is supposed to be the original stock of all the varieties of that useful creature. The general appearance of the French cavalry, as may be inferred from the foregoing, is not striking, and the cause lies not in the men, who are fine looking fellows, but is owing to the wretched animals on which they are mounted. The lancers are a still finer looking set of men than the ordinary dragoons; but the most carefully appointed and best accoutred branch of the regular cavalry are the horse artillery. Their officers have been chosen from the *elite* of the students in the military colleges, and the privates are chosen from among the conscripts who are able to read and write. The officers of the line who are not raised from the ranks, have been in like manner educated in the schools, but they are not selected for this service where they have displayed superior talents and information in their examinations; these receive commissions in the engineering department and artillery, the less distinguished are distributed among the horse and foot regiments.

The other departments of the army, the foot artillery and engineers, I only saw upon the occasion of a grand review of several thousand troops by the king. This splendid spectacle served to convey an impressive idea of the tremendous power that lay in the hand of one individual. It was but the fragment of a colossal army of 400,000 men, all of whom were well clothed, well disciplined, headed by veteran warriors, and all endowed with invincible courage, and that innate love of warfare, incident to a people brought up in the belief that there is no happiness equal to that of fighting—it was but a small fragment, and yet so imposing did it appear to my unsophisticated eyes, that it seemed as though they were numerous enough to subdue all Europe.

But if the immensity and perfectness of the army excite our admiration, the police system in its details cannot fail to cause equal astonishment. Besides its functionaries, who are recognised as such by their uniforms and regular duties assigned to them, there is every reason to believe that the government retains in its pay a host of spies, who insinuate themselves into every class of society, and report regularly to the *prefecture* the observations they make upon the proceeding of their fellow citizens. It is certain that no *intended* insurrection has, since the revolution of July, been unknown to the agents of the police, and whenever the attempt was made, means have always been at hand to suppress its further progression. The information thus supplied could only have been given by persons who assumed the character of conspirators, for the simple purpose of betraying the plot to the authorities. As yet, none but evil doers have suffered from the inquisitiveness of spies; and discordant as it may appear to our notions of freedom, the peace of France in a great degree depends upon the toleration of this dark and fearful engine of power. Occasionally, however, we hear of rather absurd mistakes committed by the *espions*. An instance of this kind occurred to a Greek gentleman, with whom I was acquainted. He was sitting in a *café*, and conversing with another gentleman upon political subjects; a person who sat at an adjoining table suddenly started up and arrested him on the spot as a conspirator. He was, however, liberated in a few

hours through the intercession of his friend, Sir A. D., who was favorably known to the king.

The municipal cavalry of Paris, better known as the *gens d'armerie*, are truly a magnificent corps. The men are chosen for their great size and strength, and their coal black steeds, correspond in description to the war horses of the ancient knights. They wear polished brass helmets, with horse tails pending from behind, and their boots come up above the knee. Their arms consists of a short gun slung over the shoulder, a long, straight, cross-handled sword, and a pair of pistols. Their duty is to parade up and down the streets during the day, to prevent disturbances; at night from three to four are stationed at the entrances of theatres and other places of public amusement, while the remainder patrol every part of Paris until daybreak. Another corps of the same description, but less finely accoutred, are constantly riding on the roads in the environs of the city, to protect passengers from robbery. The *foot police* are habited in a plain blue uniform, with a cocked hat and a broadsword. They are very numerous, and are usually stationed at the corners of streets; they are very unpopular with the lower classes, and are termed by them *mouchards* or *spies*. One of these men was seized with a mortal disease and conveyed to the *Hôtel Dieu*, where he lay in a ward of the fourth story, under the superintendance of the talented and benevolent Chomel. On the second morning the agonies of the patient were unspeakable, and rendered desperate by his sufferings, he suddenly arose from his bed, and hurled himself head foremost out of the window, and was quickly out of misery. This horrible event took place about five minutes before my arrival—a knot of students (who are among the most seditious and turbulent of Louis Philippe's fellow citizens, and to a man, disciples of the *sans culotte* political creed,) was collected around the yet warm couch of its late miserable tenant; some were conversing in pity on his untimely fate, and others were laughing—laughing heartily at the circumstance of his having in his descent nearly fallen on a poor old woman, who gleaned a scanty livelihood by selling fruit and cakes under the shelter of the hospital walls. Suddenly one of these ruffians addressed his companions in a startling tone of voice. "He was a *mouchard!*—do you feel compassion for his fate? I don't pity him any more than if he had been a dog *la même chose!*" He appealed for the truth of this statement to the *sœur de la charité*, which she confirmed. It is impossible to depict the effect this communication had on the feelings of the young men—their countenances assumed an expression of malignant triumph, and they retired slowly from the bed, with smothered execrations and curses.

The *pompiers*, or firemen, are also a military corps, and when not engaged in their proper avocation, are employed as a police. When a fire occurs, the street is barricaded on both sides of the house, to keep off the crowd—ladders are placed against the wall, and, when necessary, ropes are slung from window to window, along which they run like so many cats. Every thing is managed with such skill and order that even should the house be burned no lives are ever lost, and the property is always saved in good condition. This corps once dispersed a mob of insurrectionists by pumping dirty water over them; these were so tickled with the idea, that their patriotism forsook them, and they ran off laughing in great good humor.

The *national guards*, or militia of France, taken as a whole, are a very fine body of men, and are in

every respect equal in point of efficiency to a regular army. They consist of house-keepers and officials attached to the public offices, each of whom is obliged to turn out several times in the year. They are ordered out on emergencies; and they also guard the royal palaces, public gardens, museums, &c. in conjunction with the regular soldiers. There is likewise a militia cavalry. The king reviews them twice a year with great pomp and display. The national guards hold the fate of the government in their hand, and no revolution got up by the reckless and persons without property can ever be successful, unless it be in conformity with their desires; they therefore constitute a balancing power between the encroachments of despotism on the one hand, and the licentiousness of anarchy on the other, while they are a check to the ambition of the regular army. Out of such a heterogeneous collection, the caricaturists find abundant materials for the exercise of their talent—the pale faces of the sedentary often decorated with green spectacles, the pompous rotundity of some of the worthy *bourgeois*, the deformity of others, the irregularity of size observed in their ranks, and other incongruities, stamp these heroes as belonging to the much-laughed at army of feather-bed soldiers. Of late, numbers, from poverty or other causes, make their appearance in plain clothes, and a tricoloured cockade in their hats, but this being considered exceedingly unsoldierlike by the rest, they are usually put into "covertury."

The asylum for old and infirm soldiers was founded by Louis le Grand, and is called the *Hôtel des Invalides*. In this and in other instances, this monarch appears to have fully merited the proud title accorded to him by his subjects. This immense establishment is advantageously situated on the river Seine, opposite to the *Champs Elysées*. The grounds attached to it are extensive and laid out into promenades, shaded by fine old elm trees. The pure air and its secluded position in the midst of a large city, render it well adapted to the wants of the feeble, while it affords a pleasant retreat to those veterans who still enjoy good health. The number of its inmates in 1835 amounted to 3,487: the accommodations which they require are on a large scale, and the establishment resembles a small town. Many of them merely vegetate, and hardly know the residences of the different superintendents. I inquired of a respectable looking old man, the general's quarters; after reflecting for sometime, he gave directions which afterwards proved incorrect; as he was perfectly civil and obliging, I did not attribute the misdirection to any thing but ignorance, which was the more surprising, as he had been many years a resident.

The internal arrangements are into dormitories, and eating rooms for the privates, and separate bed-chambers and mess-rooms for the officers. There is also a set of buildings of smaller size, and promenades attached to them for the blind. The greater part of the blind, at present in the asylum, lost their sight in Egypt, during Napoleon's campaign in that country. The disease by which so many were deprived of vision, was of a contagious nature, and ran through its course with appalling rapidity. It is said, that the contents of the affected eye sometimes gushed out in a mass of matter, within two days after the first attack. The church is of large size, and its immense dome was gilded first by Louis XIV., and afterwards by Napoleon, the remains of which are still visible. The circumstances which induced the latter to have this expensive job performed, are not a little singular.

Being at that time rather unpopular, one of his advisers informed him that the people were discontented at the dome not being as bright as the national glory required it should be! The mandate was issued, and it shortly afterwards appeared, like a globe of burnished gold, to the great delight of the Parisians, who declared that it now represented a just and true picture of the national glory. Some such gingerbread work was required to console them for the absence of real gains. In the interior of the church, two lines of banners, taken in battle, are suspended from the roof; they are, I believe, the sole remains of the host brought to Paris by the victorious armies. They were secreted during the approach of the allied armies, and a bonfire was made of the rest.

The library contains a full length portrait of Napoleon, in his imperial robes, by David, which is said to be a striking likeness. The librarian informed us, that when he visited the establishment after his return from one of the great wars, he found that there was no library. In one month after the visit, 100,000 volumes were at the disposal of the *invalides*! The privates are not allowed to take any books out, but the officers have that privilege. The adjoining chamber contains the portraits of French generals. The person in charge of them is a lively little *Gascon*, with a tremendous gash across his right cheek; he asked us whether we had the "honor to be Englishmen;" whereupon he uttered a half a dozen English words in succession, with great emphasis, and there his knowledge of the language ceased. But he appeared to be very proud of what he did know, particularly as there were several strangers from the provinces present, who, as well as ourselves, were greatly amused at the little fellow's vanity. He shortly after interrupted himself in his descriptions, to ask us whether we had the honor "to be acquainted with the Marquis of Anglesea;" without waiting for an answer, he proceeded to say, "several years ago, as I was shewing him these pictures, he took me by the hand; *mon ami*, said he, we were opposed to each other as enemies in the battle, where you received that cut on your face, and now we are friends." He concluded this wonderful story with a laugh of delight, and was for some moments absorbed in such a deep reverie, that it was not until one of the party touched his shoulder, that he recollects himself. "Ah, pardon! Je pensois de ces temps la, Messeurs!"

We next went to see the veterans at dinner. The drums were beating the welcome call, and we took our station at the entrance of the dining hall. They poured in from every quarter. There came men with wooden legs; some without arms; the blind with long staffs, searching their way along; and aged heroes with white hair, and not a few in their dotage. The stumping of wooden legs, and scraping of the blind men's sticks, mingling with the roll of the drums, re-echoed through the vaulted corridors, and heightened the singular effect produced by the spectacle of such a collection of human fragments. Judging from the manner in which they commenced the discussion of this important meal, I have no doubt that they did ample justice to it.

The remains of many of the great French generals repose in the vaulted chambers of the Pantheon; a superb edifice, originally intended as a church, but now appropriated as a sepulchre for distinguished men. There is a remarkable echo in these vaults, and its reverberations precisely resembles the repeated discharge of cannons in the distance. Surrounded as we were by the ashes of departed

heroes, I could not help feeling a sentiment of awe during the continuance of the sounds, akin to the feelings of one, who imagines himself spoken to in the supernatural voice of a being from the world of spirits.

E.

[For the Zodiac]

BURIAL OF AGUSINA.

Mid-winter in the arctic zone!
Unpitiful tempests roar,
Yet the lash'd sea forgats to moan,
Chain'd to its rocky shore:
There is no sun the morn to cheer,
The shuddering noon to light,
But rayless darkness, cold and drear,
Cummings day with night.

Close in each lowly Greenland cell,
The shivering tenants clung,
While snows on snows incessant fell,
And whirlwind banners swung,
Around the seal-fed lamp they drew,
That spark of life to fan,
Which cast a glimmering radiance through
Those effigies of man.

Frost, like a subtle serpent, stole
To every secret nook,
And from the pulses of the soul
Their lingering fervor took;
The bursting rocks convulsive roar'd,
The solid ice was riven,
As if embattled thunders pour'd
The artillery of heaven.

Sad in his subterranean home,
There dwelt a lonely sire,
No more its cherish'd inmates come
To trim his failing fire,—
No wife—no babe—and ah! so long
The grave had chained their love,
That Memory o'er the idol-throng
Her misty mantle wove.

But one, the daughter of his soul,
Last summon'd from his breast,
Still o'er his sorrowing vision stole,
Caressing and caret,
Still seem'd from heaven's own page to take
Rich portions for his ear,
Or with her warbled hymn to make
His hour of slumber dear,—

"Beata! in yon blissful clime,
Where thy bright lot is cast,
Doth the young flowret reach its prime,
Unwounded by the blast?
Beams there a sky without a cloud?
An undeclining day?
Dares Winter spread no icy shroud?
My angel-daughter, say!

"Oh, speak once more!—with whisper'd tone
Confirm the promise blest,
Whose glory hush'd thy parting groan
When thou didst sink to rest?"
Yet nought but sullen echoes made
An answer to his grief,
While wildly from Beata's shade
He urg'd a vain relief.

Then, in the healing book of God,
With tearful foil he sought,
While in his soul, affliction's rod
A peaceful moral wrought,
Till humbled at his Saviour's feet,
In penitence he lay,

And felt his pagan sorrow fleet
On prayer's soft breath away.

Stern sickness rack'd his aged frame,
Unwonted torpor stole,

And death, all unresisted, came
To claim the chasten'd soul,

"Twas when harsh winter's sharpest sting
Arous'd the shrieking blast,
That on the tempest's troubled wing
His ransom'd spirit past.

Red torches pierc'd the midnight gloom
As with the dead they hied,

And burst Beata's stony tomb
To lay him by her side—

The lip that oft her sire had blest,
A fleshless welcome gave,

As brow to brow and breast to breast
They fill'd that frost-bound grave.

Sweet music 'mid the funeral rite!
Soft swells the dirge, and low,

Whence cometh in this dreary night
Such melody of woe?

A chapel-bell!—who bids it speak
In this forsaken bourne?

Who bids its Sabbath sweetness break
The trance of those who mourn?

Thou know'st not?—*Praise to God above!*

The meek Moravian band,
With all their habitudes of love,

Have dar'd this fearful land:
Hast thou not heard how Greenland's wild,

Her everlasting snows;
Beneath their ministry have smil'd

And blossom'd as the rose?

Their steps those holy teachers turn'd
To yon unnoted bed,

And for their buried convert mourn'd
As for a brother dead,

And there, with music's murmur'd breath
With prayers of heavenward trust,

They mark'd as with a living wreath,

Poor Agusina's dust.

L. H. S.

[For the Zodiac.]
BIOGRAPHY OF TALLEYRAND.

CHAPTER VI.

Talleyrand had already made various voyages to England before his public mission with Mr. de Chauvelin. At the end of 1791 the party spirit began already to manifest itself throughout France, particularly against the secret intrigues of the court and the great weakness of the King. Talleyrand, perfectly aware of what was going on, spoke of the importance of a closer connexion with England, as the only means to stop any serious explosion.—Marshal Biron, to whom he addressed himself, was in the intimacy of the King and Queen, and it was resolved in a private council to send Talleyrand and Biron to the cabinet of St. James, in order to point out to England the advantages which might result to her from the revolution, which had given France a constitutional King, and likewise to endeavor to strengthen the ties which united the two courts.

They arrived in London on the 25th of January, 1792. Talleyrand went to the minister, Pitt, in the full confidence of a kind reception, as old acquaintances. Pitt, during his residence at Rheims had been received and treated with marked distinction by the archbishop, uncle of Charles Maurice, who was then with him, and these two young men lived several weeks of Pitt's stay in the palace, in a kind

of intimacy. The premier received Talleyrand, nevertheless, with marked coolness; not a word was said on either side of their former intimacy, and after a short conversation the minister dismissed him drily, and saw him no more.

Lord Grenville had a long conversation with him, in which however, nothing was determined; and after having listened with great attention to the proposals of Mr. de Talleyrand, he, in order to arrive more promptly at a conclusion, put the two following questions to him:—Whether he would pledge himself that full reliance could be placed upon the overtures made by his government? Secondly—if he could guarantee the existence of that government for any length of time? Mr. de Talleyrand, too prudent to answer in a decisive manner, the interview was as suddenly as unceremoniously put at an end.

The coolness of the cabinet of St. James caused that of the Tuilleries much uneasiness. Mr. de Talleyrand's view was to place them together on a better footing, and in case he should not succeed in effecting a union between England and France, at all events to assure himself that no fears were to be entertained of England. Lord Grenville confined himself to the greatest laconism, and did not meet any of the advances which Mr. de Talleyrand made. The fact is, that he mistrusted him, and said of him, that he was a profound and dangerous man.

Mr. de Talleyrand's reception at court was not more favorable than the one he had experienced from the ministers. On his presentation to George III, this monarch scarcely paid any attention to him, and the Queen turned her back upon him with affected contempt. She justified this feeling upon the score of the reputation for immorality, which the bishop of Autun had acquired. The reception he met with at court served as a guide to the fashionable world, and Mr. de Talleyrand found himself excluded from the higher circles of society as a dangerous man—an agent of the frightful Orleans faction, whom they dared not openly repulse, but dared still less receive into their society.

As soon as he received the news of his friend, Mr. de Narbonne's removal, from the ministry of foreign affairs, he left London, and arrived on the 5th of March in Paris.

Of all the factious then at Paris, Mr. de Talleyrand had the least to apprehend from a new revolution. If the royalists had been victorious, he was safe, his treachery being unknown to the King; and if the Orleanists, or republicans, got the better of their opponents, the services he had rendered them promised him a reward instead of proscription. This is not surprising, for any one who knows well Talleyrand's adroitness.

In public, and in matters of business, he endeavored to hide his ambition under an air of reserve, and adopted only the appearance of a profound thinker. He was at first extremely cold in his manner, as he has always been; and when on his first voyage to London he appeared in society, every one was greatly astonished at his grave and reserved air, and his manner of expressing himself with so much grace, and in so chosen and precise terms, short and full of wit, of which I shall give a great many proofs in the course of this work.

He was however, quite a different man in the intimacy of private life. He indulged in the pleasures of conversation with a keen sense of enjoyment, and generally spent part of the night thus

engaged. Familiar, caressing, attentive, he used every means to please, and render himself easy of access through a species of epicurism, seeking to render himself amusing, in order that he might be himself amused. He was never over anxious to speak, but he always made use of choice expressions; and the delicacy of his sayings were scarcely understood but by those accustomed to hear him. He is the author of the observation quoted by Champfort, when Ruhlière said: "I do not understand why I have the reputation of being wicked; I never committed but one wicked action in the whole course of my life." The bishop of Autun, who had not yet joined in the conversation, said to him with his sonorous voice and significant manner, "and when will it end?" One evening, whilst playing at whist, the conversation turned upon a lady, who at the age of sixty had married a kind of valet-de-chambre. Some persons expressed their astonishment at this singular match; the bishop of Autun, who was counting his game, said: "At nine, honors go for nothing." On another occasion, when his friend Narbonne, the same who had fallen under the King's displeasure, was walking arm-in-arm with him, and reciting some verses, all at once Mr. de Talleyrand perceiving at a short distance from them a man who was yawning, interrupted his friend, saying, "Narbonne, not so loud;" and pointed to the yawning man. One day as he was relating some infamous trait of one of his colleagues, his hearers interrupted him, exclaiming: "The man who could commit an act of that kind is capable of assassinating."—"Assassinating? no," coolly replied Mr. de Talleyrand, "but of poisoning,—yes."

At his return to Paris Mr. de Talleyrand was graciously welcomed by the King, who had then the greatest confidence in him. He being a member of the directory of the department, he became more than ever immersed in the whirl of political societies. It was through the influence of the then all-powerful Girondins, that Mr. de Chauvelin was sent as nominal ambassador to London, whilst Mr. de Talleyrand accompanied him as the real one, as I have stated in chap. v. Here Mr. de Talleyrand affected very little of the bad reception of the English court, and the ministers whom he saw but when necessary, and spent nearly the whole of his time with Fox and Sheridan; and this connexion becoming known, raised an insurmountable barrier between the embassy of France and the ministerial party.

Talleyrand, in a letter to his mistress of the 22d of May, containing a copy of the King's letter, mentioned in chap. v., writes "that it was composed by him (Talleyrand) and copied without any change or remark by the King. I am now so busy," continues he, "with my preparations, and in meditating on my several and opposite instructions from the Tuilleries, (the King) from the Palais Royal, (the Duke of Orleans,) and from *la Mairie*, (Pétion) that I have only time to pass a few hours with you this evening, when I shall give you two different sorts of cyphers for your use in writing to me, and choose different directions for continuing with safety, and without interruption, our mutual correspondence," &c. &c.

Such was finally Talleyrand's adroitness and cunning, that, notwithstanding his activity in England, voyages to France, and intrigues with all parties of both countries, he was not suspected or accused of any double or unfair dealings, until the authority of the King had been annihilated by the republic, the Duke of Orleans disgraced and his factions dissolv-

ed by them; and in their turn the republicans had been proscribed by the Jacobins and others, or when, from the destruction or impotence of his employers, and his own absence from France, with their capitals, secrets and plans, he had nothing either to hope or to fear from the reign of terror, which he together with them had prepared.

He had not been in England much more than a fortnight, when on the 24th of May he wrote to his mistress, complaining both of the English democrats and aristocrats, the former for their avarice and want of principle, and the latter for their haughtiness and want of good behaviour. * * * "The only consolation I have for these and other unpleasant occurrences is, that from my situation and information, I am enabled to speculate in the public funds with advantage, and at the expense of this covetous nation, enrich myself and my friends."

On the 7th of July, 1792, Talleyrand left London for Paris, where he arrived on the 11th. The period for the second confederation now approached, and it was rendered additionally alarming by the arrival of large bands of *fédérés* from the departments, who were selected from the most furious members of clubs, and presented petitions in which they openly avowed their determination of dethroning the King and demanding his immediate trial and death. Among these men, those called the *fédérés Marseillais* particularly distinguished themselves for their violence and sanguinary threats.

Mr. de Talleyrand, who foresaw the coming storm, hastened back to England, and landed at Dover on the 21st of July, where he wrote to his mistress on the same day: "Though laboring under a severe indisposition, in consequence of a boisterous passage, I shall endeavor to forget the pains of my body in confiding to my friend the troubles of my mind. I have certainly seen the last King of the French for the last time! This event, you will say, is what I have long wished for. True. But I expected some sort of government, either a dictatorship or a republic, to be prepared to succeed immediately; whilst I have found no plans for the establishment of a new system, though I have been so long plotting the destruction of the old one. Of this, improvident anarchists, destitute of virtue and patriotism, will take advantage. They will wade through seas of blood and ruins of cities and towns, of trade and agriculture, to a tyranny, which, (unless circumstances should happen, of which there is not the most distant probability) must necessarily cause the dissolution of civilized society. In that vortex of confusion and crimes, what patriotism can be safe, and what innocence respected? Who can prevent our countrymen from butchering each other in civil wars," &c.

As soon as the events of the 10th of August were known in London, the court of St. James ordered Lord Gower, the ambassador at Paris, to leave Paris, and to declare that the King of Great Britain intended to observe the principles of neutrality in every thing regarding the internal government of France.

No official statement mentions that Lord Gower left any chargé d'affaires behind him at Paris, nor that the British government appointed any diplomatic agent there, as its representative to the self-created executive councils.

* We find in the Journal des Jacobins of the 13th July, 1793, that from May to December, 1792, Talleyrand gained by stock-jobbing in England two millions of livres.

Mr. de Talleyrand however, in a letter to his mistress, sends private information to Pétion, of a gentleman indirectly accredited to them by the English ministry. He writes under the 9th of September: "According to Pétion's confidential request, I send you all the particulars I have been able to collect, concerning the person indirectly accredited to our provisional government by the English ministry, and of which you must not fail immediately to transmit him a copy. Mr. Munroe is a Scotchman by birth, and was formerly a captain in the 41st regiment of foot, from which about three years ago he was obliged to sell out, having involved himself in some pecuniary difficulties by a marriage with a lady of a noble family, but of no fortune, by whom he had several children. * * I am told that he is a moderate aristocrat, and though not rich, of a character not to be tempted by money. But as he is still young, and has lost his wife, some of our young, amiable and rich female sans-culottes might at least, without danger, lay siege to his heart, and Venus may perhaps, conquer in the field where Plutus would be sure of a defeat. Every thing considered, I strongly recommend that no other than female agents should be employed about him, being brave as well as disinterested," &c.

MEMOIRS OF MY LIFE.

By an Old Soldier.

CHAPTER II.

My father, desirous to be personally acquainted with that famous northern king, who, issuing from a poor marquis of Brandenburg, had had the skill and power to resist three of the greatest nations in Europe, went to Berlin, and took us both, my brother and myself, with him.

After a bloody struggle of seven years, in which Frederic II. astonished the world by his military skill, he compelled, at last, his enemies to make an honorable peace, by which he gained Silesia, one of the richest and finest provinces of Austria, and filled his treasury with the spoils of Saxony, Bohemia, Moravia, Lusatia, Mecklenburg, &c.

This sovereign, a warrior, a philosopher, a legislator, a poet, a musician, and a scholar, reigned over Prussia with an iron sceptre, in an absolute and despotic manner. His principal aim was to have a well filled treasury, and his favorite expression was: "There are but three things wanting to make war, *money, money, and money!*" Saxony and his subjects have felt heavily the consequences of this maxim; and two Jewish bankers at Berlin, (Ephraim and Jtzig,) were his worthy associates in all his financial operations. His predilection in favor of all that was French, made him forget his being a *German* sovereign. He frequently said that the German scholars were great pedants, and he, therefore, could not like them.

At the time of our stay at Berlin and Potsdam, Frederic II. was in the fullest splendor of his glory and power. It was two years after the end of his seven years war, which ruined the greater part of Saxony, Hanover and other countries already mentioned. Many thousand peaceful and wealthy inhabitants, now poor and miserable, their abode burnt and in ruins, were compelled to search, with their half naked and starving children, a miserable shelter in forests, caverns, and mountains, and this in the hardest winter season, when snow and ice covered the fields. Streams of blood were shed during seven years without interruption, for the ambitious views of a crowned king, whom some flatterers call the being *philosopher*, as Voltaire,

Maupertuis and others. He wished to take Silesia, and took it; he marched against Saxony, which tried to resist; he invaded it, compelled its sovereign and family to escape from Dresden, and reduced this rich and beautiful land to a state of unheard of misery; permitted the two bankers, Ephraim and Jtzig, to cheat the people, in forcing them to accept copper *sexer* and *groschen*, at their former value in silver, after they had advanced him some millions of dollars for this privilege.

This single operation ruined thousands of families; but Frederic cared nothing about it, his treasury was filled; and his partners, the two Jews above mentioned, having rented the royal mint for a fixed term, inundated the country with silvered copper coins, which *forcibly* passed for silver money. Since the peace at Hubersburg, Frederic II. had constantly maintained an army of near one hundred and fifty thousand men. But fearing Austria might attempt to retake Silesia, which he occupied by no other right than by that of his favorite motto, *ultima ratio regum*, engraved upon his cannons, he increased his army to more than two hundred thousand men! The conscription was rigidly established; the soldiers and officers up to the captains, received a very scanty salary, which obliged them to work for their subsistence, when not on duty; and a great many of the privates having learnt no mechanical art, lived by giving lessons in music, fencing, dancing, &c.; the rest stole and robbed whenever and where they could. At that time it was dangerous to go alone or late through the streets of Berlin; and various excesses were committed during our stay, in spite of the rigorous discipline, and the barbarous punishment of the *spitzruthen*.

This punishment was one of the most cruel inventions to martyrize an unhappy being to death, for having attempted to liberate himself from slavery and hunger, in trying to desert. Here follows a short description of its horror:

A soldier convicted of desertion, had to pass three days of *spitzruthen*. A double line of 200 of his fellow soldiers was formed, of whom each was armed with a strong branch of the sallow-tree. The delinquent was put in front of the line, his shirt taken off, so that his body was entirely naked, from the waist up to the head, and placed between two non-commissioned officers, who had the order to march at a slow pace, the one before, the other after him, the point of their espontoon (a kind of lance) turned against him, to hinder him from quickening his pace, so that he received from the soldiers, on the right and left side, every blow upon his bare body. His hands were tied before him, and his head was bare. He had a musket-ball in his mouth, to bite upon, in order to relieve his pains. On each exterior side of the line of soldiers marched an adjutant, following the same steps with the sufferer, to watch that the soldiers might do their duty; those of the soldiers who struck not hard enough, received a blow from the adjutant with his cane.

Many of these sufferers were condemned to thirty-six turns, divided in three days, at twelve turns each day, through a line of 200 men; he received thus every day 2,400 lashes, with these sallow branches; being thick and elastic, the condemned was lacerated alive! After the first day his body was already covered with blood and wounds; remanded to prison, a surgeon rubbed him with water and salt, which renewed his pains; the second day was worse, and the torture often so great, that he fell senseless to the ground. They awakened

him to life and new tortures; but nothing could save him from his twelve rounds! On the third day he expired, ordinarily, under the most horrid pains. If he could neither walk nor stand, they took him from the ground and tied him, still alive, to a tree, and each of the two hundred soldiers advanced, one after the other, and gave him the number of lashes which remained to be given.

This was the barbarous punishment of a deserter, tolerated and inflicted by a so styled *great and philosophical* king! Frederic William II., his nephew and successor, abolished this cruel punishment. But is it not astonishing, that still in the British navy and army, a similar cruel punishment exists, even till the present day, and that lord Wellington was one of those who were opposed to abolishing it?

Under the Electors of Brandenburg, and their successors, the kings of Prussia, it had been the general rule, to choose for their numerous infantry body guards, men of fine appearance, and of a higher than common size, and to use different stratagems, in order to obtain them, even from foreign countries. Here is a trait out of many others. The elector, Frederic William I., called the Great, distinguished himself in this *mania*, and spent a great deal of money to satisfy it. He sent in every populous German state, some officers with a certain quantity of non-commissioned officers, called *recruiters*, with the peremptory orders, to furnish his guards with chosen men, at least six feet high. They received a higher pay, an extra recompence, in proportion to the size of the thus stolen recruit, and other advantages. These recruiters were never in uniform, but clad as civilians of the higher orders; they had a great many spies in the coffee-houses, taverns and other much frequented public places. One day, some of these recruiters met at Dresden, the capital of Saxony, a young and handsome looking man, of more than seven feet high, in one of the streets. They stopped him, and invited him very politely to take some refreshments with them. The other excused himself, and said that his master was waiting for him for dinner, and that he never drank any liquor. They separated, and as soon as the apprentice cabinet-maker was gone, the officer ordered one of his men to follow him unperceived, and to mark well the street and the house in which he entered.

Some days afterwards, a gentleman, very fine and elegantly dressed, entered the shop of the cabinet-maker, and commanded him to make a coffin of an extraordinary size, of which he gave him the measure, settled the price, paid him the account, and ordered him to send the coffin the next evening, after sunset, to such an hotel. The cabinet-maker, highly pleased with the generous stranger, put himself immediately at work, and sent the coffin by four workmen, at the appointed hour, to the hotel. The young giant accompanied them with the necessary tools, screws, nails, and the bill. They were shown in a large room, lighted with many wax-candles, where the coffin was placed before the gentleman, who had commanded it, in the presence of about a dozen others, all in mourning. The first asked for the bill, paid it, and sent the four workmen, well rewarded, home, observing carelessly, that he wanted no more than one, (pointing out the giant,) to screw the coffin after having brought in the corpse. The other four went away; the gentleman, who was no other than the recruiting officer, said to the giant, "It seems to me, my good friend, that the length of the coffin

corresponds not with the dimension given to your master." He took another measure, prepared before hand, of seven feet long, and measuring again the coffin, he said to the man, "that having commanded one of seven feet two inches, this was too short. Your master has cheated me," added he in an angry tone, "take the coffin and give me my money back!" The apprentice taking warmly the part of his master, sustained the contrary; and after having disputed a while, one of the company (all recruiters) said, "It appears to me that this young man is about of the same size of our deceased friend, and if he would try to put himself in it, I am pretty sure you would not send the coffin back, which may save all trouble and expense." The apprentice readily assented, and extended himself in the coffin, to prove all was right.—Scarcely had he stretched himself out, when they fell upon him; the one putting a gag in his mouth, while others tied him fast in the bottom of the coffin, and fixed the cover, in which they made holes to give him fresh air. After having given him the most positive assurances, that they intended not the least harm, if he would remain quiet, six of them lifted the coffin upon their shoulders, whilst the others followed, passing, in, the darkness, through unfrequented streets of Dresden, and gained the high road to Berlin, where a large wagon and other carriages, with speedy horses, awaited them; and without a moment's delay they drove off. When they had arrived in the territory of the elector, they halted, opened the coffin, and relieved the poor young man, half suffocated and bruised, took the greatest care of him, and thus he arrived safely at his destination, at Potsdam, where the elector forced him to exchange his tools for a musket.

I saw at Potsdam, one battalion of Frederic II.'s body guards, of which the smallest soldier measured five feet ten inches. The emperors of Austria and Russia, the kings of Bavaria, Wurtemberg and Saxony, and some other sovereigns, have imitated the Prussian mania, and selected men of the largest size. Bonaparte chose for his first body guard not so much men of a large size, but of known skill and bravery.

The cavalry of the Prussian guard consisted of one regiment of gardes du corps, and one of gendarmes; and as their uniforms were rich, the king admitted as officers, no others than opulent noblemen, of the highest birth, able to equip and maintain themselves in a splendid manner. As the Prussian nobility is, in general, poor, in comparing them to those of Austria and Russia, a great many families run in debt to be able to support their sons; then to be admitted an officer in one of these two corps, was, and is still, a distinguished honor.

How childish is human nature! A fine uniform, a beautiful horse, shining arms, in Prussia, were sufficient motives to ruin a good number of families; while in France, under Napoleon, thousands died in attempting to gain a ribbon, or the order of the Legion of Honor. Never was Napoleon so profligate in the distribution of this order, than twenty-four hours before a battle. He and Frederic, whom he imitated in many instances, had a perfect knowledge of human nature; both were perfectly assured by the distributing the Legion of Honor, or Order *du Mérite*, that those who received them, would be ambitious to deserve them, and those who expected, would try to receive it after the battle; and both fought for what? for—a ridiculous toy.

We were, my father, my brother Charles, and

myself, presented to Frederic II., who received us very graciously, and invited the former to those famous suppers, where Frederic appeared to forget that troublesome office, *to be a king*. In this, Frederic deserved the name of Great; he worked during more than forty years assiduously in his cabinet, or at the head of his armies; this is a too well-known fact. His suppers were gay, spirited and lively; every guest had the right to speak very freely, even of the king present and his administration, which sometimes were not spared. He was the first to laugh when the criticism was witty, and in a humorous style. The general topics of conversation turned upon politics, literature, morals and religion; but when the heads were warmed with the most exquisite wines, and the conversation took a turn too noisy, or too indecorous, the king knocked strongly, with the haft of his knife, on the table, assumed a grave air, and exclaimed in a strong voice, "Gentlemen! gentlemen! here comes the king!" Immediately all was quiet, and every discussion ceased. Many times Frederic then took up the conversation, and all became again lively and spirited.

All those invited to sup with Frederic, and those who had been presented to him, were admitted into his attendance during the three days of his great manœuvres. Thus we were enabled to follow him and to see this great and beautiful spectacle. Every six months, spring and autumn, he ordered to be assembled, some times more than thirty thousand men, at Magdeburg, Potsdam, Berlin, or Koenigsberg. These troops formed a large and beautiful camp, and the service was performed like in time of war. All the generals and staff officers, guards and troops, were in their best uniforms; the first superbly dressed and mounted; the king alone mounting a beautiful white charger, by which he was distinguished. None of his officers could use a similar horse during these three days; for the rest, he was dressed in his old blue velvet cloth, with rasped elbows, with a shabby white waistcoat, all covered over with Spanish snuff, of which he used a great deal. His hat was triangular, small, without laces or plumage; he wore no epaulets. His sight made a strong impression upon me, and I asked at various times, loud enough to be heard, "Papa, papa, is that man the king? How shabbily clothed! What a fine horse!" &c. Every eye was now turned upon me, who, mounted like my brother, little spirited Lithuanian ponies, which our father had bought for us; and various of these generals laughed heartily in talking familiarly with us during our ride from the palace to the camp. In short, the king, wishing to see us on horseback, sent for us, and spoke more friendly to us, than he had done when presented to him. This little incident procured us many friends, who were kind enough to choose for us the best spot, by which we were able to see well all the evolutions, which, amused with our observations and childish exclamations, they had the condescension to explain to us.

Frederic gave the signal to commence the manœuvres. At that moment the general and staff officers, who had formed a circle round Frederic, departed towards every direction, in full gallop; the cannons fired; the drums beat; tymballs, trumpets, and other military music, electrified men and horse; and I was in rapturous joy at all this bustle and imposing spectacle. My father had great trouble to suppress my impatience, and to prevent me from galloping off with one of my new acquired friends, towards his division. The impression was so strong

upon my mind, that from this moment I conjured my father to let me be a soldier!

The manœuvres began; my attention was divided between these moving masses and the king. He stood a hundred paces from me at my right, in one hand the bridle of his horse, and with the other he had a little cane with a golden head, suspended at his wrist on a black ribbon, and in his hand a little spy-glass, which he used frequently to look every where. He followed the evolutions of all the different corps with the greatest attention, and his *coup d'œil* was so quick and just, that he perceived immediately the smallest fault, which he punished generally after the review with the greatest severity.

Frederic's intentions were, that the princes of his house should learn early and fully all the details of the military art, and he put them, therefore, at the age of nine or ten years, as simple soldiers in one of his regiments, in garrison at Berlin, or Potsdam. There they were treated like common soldiers, eating and living with them in the casern; they mounted guard, cleaned their arms, and did all the services of a private soldier. If they committed a fault, report was immediately given to the king, who punished them severely. When they were promoted to the grade or rank of officers, they were clothed, armed and equipped precisely like the others, at the king's expense, and put commonly in one of the regiments of guards, where they assisted at the great manœuvres. On these occasions they were promoted and praised when having done well; on the contrary, they received a public reprimand, and sometimes were punished with arrest, or degraded. Thus it happens, that amongst the Prussian princes, up to the present day, there is not to be found one who possesses not a full knowledge of the duties of an officer of infantry, cavalry, or artillery; then, besides the mechanical part of their art, they receive private instructions in the different and vast branches of the military sciences, which, applied to practice, contributes not a little to their perfection.

This Prussian method would be very useful to introduce among our young officers of the militia, where nobody should be admitted as an officer, if he could not command, as is frequently the case in our militia. Their instruction is highly important, as this militia is the standard upon which our liberty and freedom relies in case of an invasion. Every one sees the importance of such a change, every one talks and writes upon the subject; but those who should ripely consider the matter, and who could, after examination, act to reform these abuses, are too much occupied with selfish party intrigues, conventions, caucuses, banks, and rail-roads, which brings them money and spoils; and the welfare of the people, in regard to education, instruction, and a sound change in our militia system, is totally disregarded and neglected.

Before we leave Frederic, we may give of him one anecdote, very little known. This king loved much a good table, and above all, fruits, particularly cherries. He had large hot-houses near his favorite palace, *Sans-Souci*, where French gardeners cultivated fruits of every kind. At Christmas eve, his gardener brought him commonly sixty, (called in German a *schock*,) of the choicest cherries, for which he regularly paid a golden Frederic (about three and a half of our dollars) a piece. One day he admired them a good while, eat some, and sent about half of them to the queen, his wife, who lived separately from him, at her palace in Mon-

bijou, near Berlin. He called for his page on duty, and ordered him to deliver the box with the cherries, and a note, to the queen. The page had carefully observed the king through the key-hole, seen him eat some of them, arrange the remainder in the box, shut it, tie it with a string, and seal the box. On the road, my young lad was tempted to eat also some of them; he grew warm, dismounted and sat a good while upon the snow, at a good distance from the road. His two hands seized the box; he turned and turned it, and did not know how to act, to take some cherries out of it, without breaking the royal seal, or cutting the string. "Ah bah," exclaimed he "never mind, I will eat at least some of them, and shall do it!" This determination once well fixed in his mind, he took his knife, cut the string, broke the seal, and opened the box. His eyes sparkled, his mouth was wide open, he took one, two, three, and finally, emptied in a few minutes the whole box!

But now came the reflection: "What will the king say?" he remained for a while as if thunderstruck, in casting a melancholy look upon the ruins which lay scattered around him. But soon he assumed his natural gay and lively spirits, collected carefully these ruins all together, and buried them under a heap of snow, remounted his horse and rode quietly back to Berlin. When the king saw his page returning so quickly from Monbijou, he was quite astonished, but much more when the page brought him a verbal compliment from the queen, requesting his majesty to send her some more of those cherries, having found them so exquisite. "How?" said Frederic, much surprised, "has then the queen eaten all these cherries in such a quick time, and in your presence? Have you not a single line from her?" "No, sire, she had not the time to answer your obliging note," said the page, with great impudence, and—the page was dismissed.

The New Year's day arrived, and with it the usual ceremonies of the court, which prescribed as a duty, that the queen, the princes and the whole royal household, paid their congratulations to the king. He lived not on good terms with the queen, and visited her every year but seldom; he treated her, nevertheless, with great politeness. She was of a tall size; her features were fine and very agreeable; all her manners were graceful and mild; her voice was sweet and pleasing; and being introduced to her, she appeared highly amused with my childish and quick replies, and conversed with us a long time.

Frederic, after having conversed some time with the queen, was surprised that she mentioned nothing about the cherries; he hinted, therefore, some words, that he expected a compliment, &c. The queen, who could not understand him, was of course, unable to answer as he desired. Frederic, who was of a very quick temper, growing impatient, asked her abruptly how she had found the cherries. "What cherries, sire; what do you mean? I do not understand you." The king immediately suspecting the trick, told the queen all that had passed the day of Christmas eve between him and one of his pages. She assured him of having seen neither cherries nor page, or letter of the king. Both could not abstain laughing heartily at this trick of a boy of twelve years old; but Frederic was well aware of the necessity of punishing him.

The following morning the king sent for the page, and without saying a single word to him, he gave him a sealed note, directed to the adjutant of

the pages, with the order to deliver it himself, immediately, and wait for an answer. The young lad, who had perfectly well observed the conversation of the day before, between the king and queen, suspected immediately that something wrong was going on, and the true intentions of Frederic. He met in his way an old Jew, a famous usurer, who used to advance to him and the other pages some money at the rate of thirty to forty per cent. He called him, and said, "Oh, my dear Abraham! I am in a great hurry to go on a warrant from the king to his jeweller, be so good to hand this little note to our adjutant; but you must go right away, and wait for an answer; here, take this for your trouble." In saying this, he gave him some money, and left him. The Jew, glad to see some cash, took the letter and hurried away. He found the adjutant at home, was admitted and handed him the note, requesting, humbly, for a few lines in answer. The adjutant opened the note and read it for himself. It contained the following order:

"Give the bearer twenty-five hard lashes with the flat of your sword, and make your report to the governor of my pages. FREDERIC."

The adjutant looked quite astonished at the Jew, who stood before him in an humble attitude, waiting for an answer. But such was the blind submission to the orders of the absolute Frederic, that the adjutant stood up, spoke not a word, or asked any question, locked the door inside with the key, drew his sword, and assailed the poor Abraham with twenty-five of the hardest lashes which ever a Prussian subject had received in his life, without regard to the explanations, or the howlings of the sufferer. After having counted exactly the twenty-five, he opened the door and dismissed him.

The page, who waited on a corner of the street to see the Jew come out from the house, hearing his cries and lamentations, absconded himself, and ran, laughing heartily at the success of his trick on this usurer, towards the palace. He related, immediately to his companions, all that had happened with Abraham. Their burst of laughter was so noisy, that Frederic, who had his cabinet not distant from the room of the pages, astonished, rang the bell for the page on duty, and asked for the cause of the noise. The page, scarcely able to suppress his merriment, said it was Tauenzien. "What!" said the king, "already returned? Well, call him." Frederic was much surprised to see him appear with his usual smiling and gay air; he asked him if he had made his commission, and what was the cause of such a noise? These questions were made in a harsh and angry tone. The young page kneeled down before the king, avowed his fault, asked pardon, and related to the king the whole transaction with Abraham, for whom the king had a strong dislike, with such great naivete, that Frederic could not restrain from laughing. He granted Tauenzien not only his pardon, but took an affection for him, which was daily increased, by the excellent qualities of this young man, so that he advanced him rapidly.

(To be continued.)

[For the Zodiac.]
THE SONG OF THE BELL.

FROM THE GERMAN OF SCHILLER.

(Continued.)

Well! the melting now is done:

See how roughly it has broke.

But before we let it run,

Let us heavenly aid invoke!

Now the passage ope!

In God be all our hope!
Shooting round the well-wrought yoke
See the burning billows smoke.

How useful is the fire's might
By man restrain'd, and watch'd aright,
His thanks for what he forms anew,
To this celestial power are due:
But terrible her power indeed,
When from her fetters once she's freed,
And nature's unrestrained child
Revels, mid devastation wild.
Woe! woe! when thus with glowing feet,

All opposition she withstands,
And through the thickly settled sheet
Rushes and hurl's her monstrous brands?
For when the elements, they meet,

How weak the works of human hands.

And now the cloud

Its blessings sends,

The rain descends;

While without apparent aim,
Far and wide the lightnings gleam!

Hark! around the steeple's form

Sullen moaning makes the storm.

Red as blood is all the sky,

But 'tis not the day dawn nigh!

What a hubbub! from the streets

Now the thick smoke comes in sheets!

The fire column flickering glows,—

Through the street of lengthen'd rows

With frightful swiftness on it goes,

As from a heated furnace flashing,

Glow the air, the rafters crashing,

Windows breaking, pillars falling,

Mothers running, children squalling,

The cattle moan

'Neath fallen stone,

All are running, saving, flying,

Night o'erpowered by light is dying;

Through the hands in lengthened chain,

Which in emulation strain

Speed the buckets—arching o'er

Their well-aimed streams the engines pour.

Howling comes the storm once more,

From which the flames new vigor gain.

Crackling 'mid the heaped-up grain,

It falls upon the store-house high,

Now has caught the rafters dry,

And as if with labor light,

The earth itself 'twould bear on high,

In its fierce resistless flight,

It waxes upwards to the sky

With giant might!

Hopeless quite

The man submits to God's decrees,

With folded arms, amazed, he sees

His works destroyed.

All consumed

Is the homestead,

Now the tempests ruder bed.

In the window's place deserted,

Horrors sit,

And the clouds o'er heaven that fit

Gaze proudly in.

To the grave,

Which now contains

His toil-won gains,

Looking back, one glance he gave,

Then cheerfully resumes his pains.

Though stripp'd of fortune by the flames,

One comfort sweet remains in store;

His little flock he numbers o'er,
And see! all answer to their names.

 Now 'tis pour'd into the earth,
Successfully the mould we fill;
But will it have a happy birth
To recompense our toil and skill?
Should the casting crack?
Should the mould aught lack?

 Ah, perhaps e'en while we're speaking,
Mischief its worst spite has been wreaking.

 To the sacred earth's dark bosom,
Our handiwork we now confide,
As does the seed the sower hide
In hope that soon with fruitful blossom,
'Twill bless him with a harvest wide:
Yet far dearer seeds we trust,
Sorrowing, to the breast of earth,
And hope that rising from the dust,
They'll bloom in an immortal birth.

 From the steeple
Sounds the bell
With heavy stroke
The fun'r'l knell.

 Its mourning peals impressively attend
The pilgrim to his toil-worn journey's end.

 Ah! it is the wife—the mother—
Names endeared, each by the other—
By the black prince of shadows, torn
From her husband's fond embrace,
From the children by her borne,

 A blooming, smiling, prattling race,
Whom, upon her faithful breast,
She oft has soothed to needful rest.

 Ah! the ties that made them one
Now are evermore undone,
For the mother of the band
Inhabits now the spirit-land,
And her kind and gentle sway
From the house hath passed away;
A stranger, void of love, will hold
Her place, and her sweet children scold
(To be continued.)

(For the Zodiac.)

ORIGINAL ANECDOTES OF BONAPARTE.
(Continued.)

NAPOLEON AND THE GRENADIER.*

It was after the battle of Jena the Emperor entered the capital of the Prussian dominions in triumph. In a short time he left Berlin with his staff, of which I was then a member, to meet the Russian army, which was advancing against us. Several detachments of the French were already in advance, and other regiments were in full march, so that the road from Berlin to Konigsberg was crowded with soldiers, wagons, artillery and the baggage train. The Emperor, as was his custom, took the bye roads and travelled so fast that but few could keep up with him. The soldiers who saw him pass by, accompanied only by two or three officers, gave him the nick-name of the "petit corporal." Being pretty well mounted, I generally managed to keep pace with him, and thus had an opportunity of remarking that he sometimes looked behind to know who was following; and he could not help smiling when he remarked how few there were in his train.

* This anecdote is taken from *Le Glaeure Francais*, by Ducoudray Holstein, of which the second edition has lately appeared in Albany. The previous original anecdotes of Napoleon, as well as the one we have taken from the *Glaeure*, are by the same author.

The heavy rains however, impeded our march, and it was with some difficulty that we were able to advance at all in some places. All at once the Emperor reined up his horse to look at a grenadier of noble figure, with black mustachios and whiskers, sitting under a tree, his musket, knapsack and large cap laid by his side, and who was busily engaged in roasting a potato on some ashes which were yet burning. He was so intent on his occupation that he neither saw the Emperor or the troops marching by him. After watching him some moments, the Emperor said: "Hallo! Grenadier! What are you doing there?" "That's a pretty question," answered the grenadier, with a broad Gascon accent; "a man must be blind not to see that I am roasting a potato on the point of my knife." "That's true," replied Napoleon, "here, give it to me, I am hungry." "Ah! ah! that's good! give it to you! give it to you. Not such a fool as that! I am roasting it for myself, and not for others. *I am hungry!*" and he imitated the Emperor's voice so well that we could not help laughing. "Come here's a gold piece, give me the half of it."—"I don't want your gold, can I eat it? will it satisfy my hunger?"—Bonaparte was much astonished at this refusal, and asked him authoritatively if he knew to whom he was addressing himself. The other still seated, and very busily occupied in turning his potato, looked up at him, and replied: "Humph! Do I know to whom I am speaking? To a man, I hope, not to a God or a devil." "But, I inquire if you know me, if you are aware to whom you are speaking." "Who you are?—yes!—no doubt I know you well—you are our '*petit corporal*,' and a good fellow—but you shan't have my potato, for I am hungry." So saying he drew it deliberately from the ashes, and added in the same quiet and easy manner, "Egad I think it will soon be done!" The Emperor could not help smiling, and said in a milder tone, "Come, my good fellow, I have a proposition to make to you; if you will give me half your potato you shall come and dine with me this evening." "What! are you in earnest?—dine with you for half my potato?—ha, ha, ha!—agreed!—the proposal is a good one, and I accept it. But come, I hope you are not joking, and that you won't laugh at me after having eat half my potato? Beware of that for 'Bras de fer' is in earnest."—"No, No," replied the Emperor, laughing, "I pledge you my word." "That's enough," replied the grenadier, quite delighted, at the same time giving him half his potato, which he had fixed on the point of his bayonet, and thus handed it to the Emperor, who took it and eat it, saying it was very good. We continued our march, and on the road Napoleon asked us if we knew who that queer fellow was, or his name. None of us could give the decisive information, so the matter dropped.

In the evening, just as we were sitting down to table, a great noise was heard in the ante-chamber, and many voices speaking together in anger. The Emperor, surprised at this, inquired what was the matter, when a servant came in, saying there was an insolent soldier out side, all covered with mud and dirt, who, having made his way as far as the ante-chamber, was inquiring if his majesty was at dinner, and that he had come to dine with him on your invitation, and, added the servant, when we laughed at this and told him he could not come in, he abused us, called us insolent footmen, robbers, scamps, and persisted in his determination of seeing your majesty. At this information, we most of us laughed, and reminded the Emperor of his morning's adventure. He immediately ordered him in.

Our hero entered in full marching costume, and presenting arms marched straight to the Emperor, who was seated at the centre of the table, halted, presented arms like an orderly giving or receiving a report, and looking the Emperor full in the face, said boldly, "Sire, here I am, 'Bras de fer,' Grenadier in the 12th regiment of the line! I shared my breakfast with you on condition that I should dine with you. It was your proposal and I accepted it; after a forced and rapid march, here I am, and as every honest man keeps his word, I suppose you mean to." "Certainly my man, you are right. Here! Constant, take care of this brave fellow, and give him a good dinner. Go my friend, and my valet will take good care of you." "Bras de fer" knit his black eye-brows; he first looked at the Emperor, and then with a contemptuous sneer at his valet, who was beckoning to him to follow, and then looked round at us all. He stood as though he was rooted to the spot. "Come! grenadier," cried the Emperor impatiently, "be off! go and dine with Constant—I have told you he would take care of you." "General," answered he firmly, "I wear a uniform, and cannot dine with valets." I must confess this noble answer gratified me, but I began to fear so bold a reply might displease Napoleon. In fact, he turned in anger towards the grenadier, who returned his glance without betraying either fear or surprise. Napoleon, however, soon recovered himself, changed his tone and said, "you are right my brave fellow, and your opinion is correct; put down your musket, take off your knapsack, and sit down here by my side." "That's right!" replied the other, "that's what I call talking like an Emperor!" He then made a half turn, grounded his musket, like a sentry on duty, and as the servants hastened officiously to assist him in disengaging himself of his accoutrements, he said to them, loud enough to be heard by us all, "be off with you, and let me alone!" Having divested himself of his arms, &c., he advanced to the Emperor, and raising his hand to his forehead, said, "Your orders general!" This sally created a loud laugh, in which the Emperor joined, and it had the effect of restoring him to perfect good humor.

In the mean time a knife and fork had been laid by the Emperor's side, who said, "Come and sit down my comrade, without any ceremony, you must be hungry." "That's right, (this was his favorite expression) this is well worth my potato!" The Emperor, who like the rest of us, was much amused with the man's easy, frank, and comical manners, helped him with his own hands to everything he wished to eat, and made him drink in proportion. He asked him many questions, which our grenadier did not stop to answer, except by monosyllables. At last, wearied with his exertions, having eat enough for six ordinary men, and drank proportionately, he turned round to the Emperor, and said, "Now, Sire, I am able to answer any questions you may please to put me." He then told us he was with Bonaparte in the two last Italian campaigns, had been with him to Egypt, was there wounded and left for dead at Cairo, &c. He then rose, opened his knapsack, and handed the Emperor his papers and certificates, who, on dismissing him, said he would have them examined, and he might expect shortly to hear from him.

Two days after he received the cross of the legion of honor and a captain's commission. His name was Charles Bidot. I have not since heard of him, nor do I know what afterwards became of him.

D. H.

ELEMENTS OF METEOROLOGY.—BY M. POUILLETT,
Professor of Natural Philosophy, in the faculty of sciences of the University of Paris, and in the Polytechnic School, &c., &c., &c.
[Translated for the Zodiac.]

CHAPTER I. SECTION 2.—(Continued.)

OF THE MOVEMENT OF HEAT ABOVE THE STRATUM OF INVARIABLE TEMPERATURE.

Having thus quoted the principal observations which so irrevocably establish the fact of an increase of temperature, below the stratum of inviable temperature, we shall glance rapidly at the causes which may produce it.

It is evident in the first place, that the heat produced by the labors of the workmen, and the burning of lamps which give them light, are not sufficient to occasion this increase, for it is observed in mines which have been long abandoned—in the most copious springs which burst forth at the bottoms of mines—and, in short, it is observed to increase in proportion to the depth. Besides, M. Cordier has calculated from established data, the possible influence of these causes, and of that of currents of air which may have gained access to the mines, during the different seasons of the year, and it follows from his calculations, that all the accidental causes combined, may easily create an oscillation of the temperature between very narrow limits, but that they can neither produce nor maintain the temperatures which have been observed.

Accidental causes being once removed, there remain but three general causes to which it may be attributed, and of neither of these can we, at the present day, demonstrate the truth or falsity.

We may say—1st. That this increase of temperature results from the more energetic action which the sun formerly exerted upon the globe:—2d. That it is the result of chemical combinations, which do not cease producing it at a greater or less depth, and of the existence of which, volcanoes are evident proofs:—or, 3d. That it is the result of a central fire, as the ancients said, or rather of a primitive heat, which the earth received at its creation, and which is preserved at great depths, while it has been gradually decreasing in the upper strata, according to established laws.

The first opinion is not very probable, except we connect it with the third; for the greater number of volcanoes which are found on the globe, attest the existence of an universal cause, capable of raising, to the highest degrees of heat, masses of matter of enormous extent. If we attribute this heat to an action of the sun formerly exerted with an energy incomparably greater than at present, we admit the central fire, and simply attempt to explain its origin. On the contrary, if we attribute the heat of volcanoes to chemical action, we require no other hypothesis to account for the 15 or 18° of increased temperature which is observed in the deep strata in which experiments have been made.

We are thus confined to two opinions, chemical or primitive heat, between which I have as yet found no decisive evidence. Still, if there are no solid objections against the chemical heat, there are at least some reasons in favor of primitive. For the earth, whatever may have been its origin, must have had a determined temperature in its different strata, its central nucleus must have been hot or cold: now there is no greater reason to suppose that it was cold at first, in order that it might be heated by chemical action, than to suppose that it was originally hot, and that its materials have aggregated at the interior and cooled at the exterior, conformably to the immutable laws which were imposed on it.

CHAPTER I.—SECTION 3.

OF THE TEMPERATURE AT DIFFERENT HEIGHTS ABOVE THE SURFACE.

It is well known that the temperature decreases in proportion as we rise in the atmosphere: sufficiently striking proofs of this fact, are seen in the perpetual snows which cover high mountains, such as the Alps and Pyrenees, in temperate climates, Chimborazo and the volcanoes of Cotopaxi and Antisana, in the torrid zone, and almost directly under the equinoctial. Naturalists have long sought both the laws of this decrease, and the cause to which it is attributable: proceeding in our usual manner, we shall first quote the principal observations which have been made on this subject, either in Europe or the equatorial zone.

In the following table, the first column shews the different stations which have been compared with each other, at the same instant, the upper station being mentioned first.

The second column shews the temperatures of the two stations.

The third column shews the excess of the temperature of the lower station above that of the upper.

The fourth column shews the vertical distance of the two stations in feet. And the fifth column, the number of feet we must ascend, to find a diminution of 1° of temperature: it was calculated on the supposition that this diminution is proportional to the height.

Table of the Decrease of Temperature, observed at different heights.

	NAMES OF STATIONS.	Temperature of upper and lower stat'n	Difference of temperature of stations.	Vertical dist. of stations.	Height in feet for decrease of 1° Fah't
1	Balloon of Guy Lussac,	14° 90			
	Paris,	87.44	72.54	22,891	315
2	Chimborazo,	29.12	48.42	19,288	398
3	South Sea,	77.54			
4	Mont Blanc,	26.78			
5	Geneva, at noon,	83.00	56.22	14,350	255
6	Mont Blanc,	29.12	52.60	14,350	272
7	Geneva, 2 P. M.,	81.72			
8	Peak of Teneriffe,	47.18	29.64	12,234	412
9	Orotava, (Cordier,),	76.82			
10	Mont Blanc,	26.78			
11	Chamouni, at noon,	73.36	46.58	12,211	262
12	do.	29.12	47.88	12,211	255
13	do. 2 P. M.	77.00			
14	Etna,	40.00	33.64	10,620	315
15	Catania, (Saussure,),	73.64			
16	Mont Perdu,	44.36	33.64	10,226	303
17	Tarbes,	78.00			
18	Col du Géant,	40.18	36.64	10,039	272
19	Geneva,	76.82			
20	Maladette,	38.18	31.18	9,527	303
21	Tarbes, (Cordier,),	69.36			
22	Pic du Midi,	52.90	28.64	8,977	313
23	Tarbes, 26 July, 1809,	81.54			
24	do.	47.54	19.82	8,977	452
25	do. 15 Sept.	67.36			
26	do.	46.54	26.00	8,977	345
27	do. 4 Sept. 1803,	72.54			
28	do.	50.72	23.64	8,977	379
29	do. 12 Sept.	74.36			
30	do.	46.54	19.36	8,977	463
31	do. 23 Sept.	65.90			
32	do.	39.18	27.18	8,977	330
33	do. 27 Sept.	66.36			
34	do.	39.72	19.00	8,977	472
35	do. 30 Sept.	58.72			
36	Col du Géant,	40.18	30.72	7,821	254
37	Chamouni,	70.90			
38	Mont Perdu,	44.42	32.58	7,060	216
39	Barèges,	77.00			
40	Pic d'Eyré,	51.80	18.54	7,044	379
41	Tarbes,	70.34			
42	Pic de Montaigu,	37.58	20.52	6,735	328
43	Tarbes,	58.10			
44	Pic du Midi,	60.52	19.48	5,429	278
45	Barèges, 30 Aug. 1805,	80.00			
46	do.	46.40	25.02	5,429	216
47	do. 15 Sept.	71.42			
48	do.	46.76	23.58	5,429	230
49	do. 15 Aug. 1809,	70.34			
50	do.	42.80	24.50	5,429	221
51	do. 23 Sept.	67.30			
52	do.	36.50	24.12	5,429	225
53	do. 19 Oct.	60.62			
54	do.	44.60	19.44	5,429	263
55	do. 11 Sept. 1810,	64.04			
56	do.	42.44	23.58	5,429	230
57	do. 22 Sept.	66.02			
58	do.	41.36	23.76	5,429	228
59	do. 28 Sept.	65.12			
60	Puy de Dome,	57.92	12.42	3,497	281
61	Clermont, 25 June, 1806,	70.34			
62	do.	51.44	12.60	3,497	277
63	do. 11 Oct. 1807, noon,	64.04			
64	do.	53.06	12.42	3,497	281
65	do. 1 P. M.	65.48			
66	do.	59.36	17.28	3,497	202
67	do. 29 June, 1808,	76.64			
68	do.	74.12	17.10	3,497	204
69	do. 7 August,	91.22			
70	Bédat de Bagnères,	46.40	5.22	1,840	352
71	Tarbes,	51.62			
72	Pont du Bergue,	26.42	6.12	1,614	263
73	Clermont,	32.54			
74	La Baraque,	71.24	3.24	1,246	383
75	Clermont,	74.48			

Mean height corresponding to 1°, 300.7 feet.

This table shews conclusively the fact of the decrease of temperature, and by casting the eye over the 5th column, we perceive that it is very irregular:

in the 34th observation, 202 feet of elevation give a diminution of 1° in the thermometer, whilst in the 18th, 472 feet were required to produce a similar result; these are the extremes of the observations, the former showing the most rapid, the latter the slowest decrease. By taking the mean of all the results we find 1° of diminution for 300.7 feet. But this mean is only an approximation which changes with the winds and the seasons, since at the same place, between Barèges and the Pic du Midi, it required 216 feet in September, 1805, and 263 feet in September, 1810.

Other experiments show that in general, the decrease is not proportional to the elevation: and when we take into consideration slight elevations as 25 or 30 feet, we observe very singular irregularities, which depend on the direction of the wind, or the presence or absence of the sun: e. g. it is not uncommon within these limits to find the temperature increasing with the elevation. This phenomenon occurs generally during the night, when the air is calm, and the sky clear, and is the effect of radiation. For the same reason we may expect to find the temperature at times almost uniform.

Humboldt made numerous observations in America, near the Equator, on the Andes of Quito, and towards the northern extremity of the Torrid Zone on the Cordilleras of Mexico. He has deduced the following results:

Heights.	Mean temp.	Diff.
0	81°50	—
3,280	71.24	10°26
6,560	65.12	6.12
9,840	57.74	7.38
13,120	44.60	13.14
16,400	34.70	9.90

Thus in these regions on the sides of mountains, no less prodigious in thickness than in elevation, the decrease of temperature is not uniform: we see that it is least between 3,280 and 9,840 feet. This stratum of the atmosphere under the equator is the region of perpetual clouds: it is here that the vapors more or less condensed, absorb in greatest proportion the solar heat, and it ought not to surprise us, that this region should be less cooled than those which possess a more pure and transparent air.

In the polar regions at Igloolik, in latitude $69^{\circ} 21'$, Captain Parry, by flying a kite as high as 400 feet, with a register thermometer attached, found no sensible difference of temperature. At that elevation the thermometer indicated 23° below zero, as it did at the surface of the sea.

The attempt has been made to express by a general formula, the decrease of atmospheric temperature. Leslie came to the remarkable conclusion, that the difference of temperatures between two stations is equal in degrees of the centigrade scale, to 25 multiplied by the difference between the direct and inverse ratio of the height of the barometer at the two stations. Thus we have—

$$D = 25 \left(\frac{H}{HH} - \frac{HH}{H} \right)$$

in which

D = The difference of temperature of the two stations.

H = Height of barometer at lower station.

HH = Height of barometer at upper station.

This expression is simple and elegant, but it must be confessed that it is still more simple to say that the temperature decreases 1° for every 200, 250, or 300 feet of ascent: they are both inexact expressions of an unknown law, for the rigorous expression of this law must include many variable

co-efficients, whose value, experiment alone can determine.

(To be continued.)

[From the Edinburgh Review.]

STATE OF GERMAN LITERATURE. With an Examination of some of the principal objections to its study.

BY THOMAS CARLYLE.

Continued.

This is the task of Criticism, as the Germans understand it. And how do they accomplish this task? By a vague declamation clothed in gorgeous mystic phraseology? By vehement tumultuous anthems to the poet and his poetry; by epithets and laudatory similitudes drawn from Tartarus and Elysium, & all intermediate terrors and glories; whereby, in truth, it is rendered clear both that the poet is an extremely great poet, and also that the critic's allotment of understanding, overflowed by these Pythian raptures, has unhappily melted into deliquium? Nowise in this manner do the Germans proceed: but by rigorous scientific inquiry; by appeal to principles which, whether correct or not, have been deduced patiently and by long investigation from the highest and calmest regions of Philosophy. For this finer portion of their Criticism is now also embodied in systems; and standing, so far as these reach, coherent, distinct, and methodical, no less than, on their much shallower foundation, the systems of Boileau and Blair. That this new Criticism is a complete, much more a certain science, we are far from meaning to affirm: the aesthetic theories of Kant, Herder, Schiller, Goethe, Richter, vary in external aspect, according to the varied habits of the individual; and can at best only be regarded as approximations to the truth, or modifications of it; each critic representing it, as it harmonizes more or less perfectly with the other intellectual persuasions of his own mind, and of different classes of minds that resemble his. Nor can we here undertake to inquire what degree of such approximation to the truth there is in each or all of these writers; or in Tieck and the two Schlegels, who, especially the latter, have labored so meritoriously in reconciling these various opinions; and so successfully in impressing and diffusing the best spirit of them, first in their own country, and now also in several others. Thus much, however, we will say: That we reckon the mere circumstance of such a science being in existence, a ground of the highest consideration, and worthy the best attention of all inquiring men. For we should err widely if we thought that this new tendency of critical science pertains to Germany alone. It is a European tendency, and springs from the general condition of intellect in Europe. We ourselves have all, for the last thirty years, more or less distinctly felt the necessity of such a science: witness the neglect into which our Blairs and Bossus have silently fallen: our increased and increasing admiration, not only of Shakspeare, but of all his contemporaries, and of all who breathe any portion of his spirit; our controversy whether Pope was a poet; and so much vague effort on the part of our best critics, every where, to express some still unexpressed idea concerning the nature of true poetry; as if they felt in their hearts that a pure glory, nay, a divineness, belonged to it, for which they had as yet no name, and no intellectual form. But in Italy too, in France itself, the same thing is visible. Their grand controversy, so hotly urged between the *Classicists* and the *Romanticists*, in which the Schlegels are assumed, much too

loosely, on all hands, as the patrons and generalissimos of the latter, shows us sufficiently what spirit is at work in that long stagnant literature.— Doubtless this turbid fermentation of the elements will at length settle into clearness, both there, and here, as in Germany it has already in a great measure done; and perhaps a more serene and genial poetic day is every where to be expected with some confidence. How much the example of the Germans may have to teach us in this particular, needs no farther exposition.

The authors and first promulgators of this new critical doctrine, were at one time contemptuously named the *New School*; nor was it till after a war of all the few good heads in the nation, with all the many bad ones, had ended, as such wars must ever do,* that these critical principles were generally adopted; and their assertors found to be no *School*, or new heretical Sect, but the ancient primitive Catholic Communion, of which all sects that had any living light in them were but members and subordinate modes. It is, indeed, the most sacred article of this creed to preach and practice universal tolerance. Every literature of the world has been cultivated by the Germans; and to every literature they have studied to give due honor.— Shakspeare and Homer, no doubt occupy alone the loftiest station in the poetical Olympus; but there is space in it for all true Singers, out of every age and clime. Ferdusi and the primeval Mythologists of Hindostan, live in a brotherly union with the Troubadours and ancient Story-tellers of the West. The wayward mystic gloom of Calderon, the lurid fire of Dante, the auroral light of Tasso, the clear icy glitter of Racine, all are acknowledged reverenced; nay, in the celestial fore-court an abode has been appointed for the Gressets and Delilles, that no spark of inspiration, no tone of mental music, might remain unrecognized. The Germans study foreign nations in a spirit which deserves to be oftener imitated. It is their honest endeavor to understand each, with its own peculiarities, in its own special manner of existing; not that they may praise it, or censure it, or attempt to alter it, but simply that they may know it; that they may see this manner of existing as the nation itself sees it, and so participate in whatever worth or beauty it has brought into being. Of all literatures, accordingly, the German has the best as well as the most translations; men like Goethe, Schiller, Wieland, Schlegel, Tieck, have not disdained this task. Of Shakspeare there are three entire versions admitted to be good; and we know not how many partial, or considered as bad. In their criticisms of him we ourselves have long ago admitted, that no such clear judgment or hearty appreciation of his merits, had ever been exhibited by any critic of our own.

To attempt stating in separate aphorisms the doctrines of this new poetical system, would, in such

* It began in Schiller's *Musenalmanach* for 1793. The *Xenien*, (a series of philosophic epigrams jointly by Schiller and Goethe,) descended there unexpectedly, like a flood of ethereal fire, on the German literary world; quickening all that was noble into new life, but visiting the ancient empire of Dulness with astonishment and unknown pangs. The agitation was extreme; scarcely since the age of Luther, has there been such stir and strife in the intellect of Germany; indeed, scarcely since that age, has there been a controversy, if we consider its ultimate bearings on the best and noblest interests of mankind, so important as this, which, for the time, seemed only to turn on metaphysical subtleties, and matters of mere elegance. Its farther applications became apparent by degrees.

space as is now allowed us, be to insure them of misapprehension. The science of Criticism, as the Germans practise it, is no study of an hour; for it springs from the depths of thought, and remotely or immediately connects itself with the subtlest problems of all philosophy. One characteristic of it we may state, the obvious parent of many others. Poetic beauty, in its pure essence, is not, by this theory, as by all our theories, from Hume's to Alison's, derived from any thing external, or of merely intellectual origin; not from association, or any reflex or reminiscence of mere sensations; nor from natural love, either of imitation, of similarity in dissimilarity, of excitement by contrast, or of seeing difficulties overcome. On the contrary, it is assumed as underived; not borrowing its existence from such sources, but as lending to most of these their significance and principal charm for the mind. It dwells, and is born in the inmost Spirit of Man, united to all love of Virtue, to all true belief in God; or rather, it is one with this love and this belief, another phase of the same highest principle in the mysterious infinitude of the human Soul. To apprehend this beauty of poetry, in its full and purest brightness, is not easy, but difficult; thousands on thousands eagerly read poems, and attain not the smallest taste of it; yet to all uncorrupted hearts, some effulgences of this heavenly glory are here and there revealed; and to apprehend it clearly and wholly, to acquire and maintain a sense and heart that sees and worships it, is the last perfection of all human culture. With more readers for amusement, therefore, this Criticism has, and can have nothing to do; these find their amusement—in less or greater measure, and the nature of poetry remains for ever hidden from them in the deepest concealment. On all hands, there is no truce given to the hypothesis, that the ultimate object of the poet is to please. Sensation, even of the finest and most rapturous sort, is not the end, but the means. Art is to be loved, not because of its effects, but because of itself; not because it is useful for spiritual pleasure, or even for moral culture, but because it is Art, and the highest in man, and the soul of all Beauty. To inquire after its utility, would be like inquiring after the utility of a God, or what to the Germans would sound stranger than it does to us, the utility of virtue and religion. On these particulars, the authenticity of which we might verify, not so much by citation of individual passages, as by reference to the scope and spirit of whole treatises, we must for the present leave our readers to their own reflections. Might we advise them, it would be to inquire farther, and, if possible, to see the matter with their own eyes.

Meanwhile, that all this must tend, among the Germans, to raise the general standard of Art, and of what an Artist ought to be in his own esteem and that of others, will be readily inferred. The character of a poet does, accordingly, stand higher with the Germans than with most nations. That he is a man of integrity as a man; of zeal and honest diligence in his art, and of true manly feelings towards all men, is of course presupposed. Of persons that are not so, but employ their gift, in rhyme or otherwise, for brutish and malignant purposes, it is understood that such lie without the limits of Criticism, being subjects not for the judge of Art, but for the judge of Police. But even with regard to the fair tradesman, who offers his talent in open market, to do work of a harmless and acceptable sort for hire,—with regard to this person also, their opinion is very low. The 'Bread-ar-

tist,' as they call him, can gain no reverence for himself from these men. 'Unhappy mortal!' says the mild but lofty-minded Schiller, 'Unhappy mortal! that, with Science and Art, the noblest of all instruments, effectest and attemptest nothing more than the day-drudge with the meanest; that in the domain of perfect freedom, bearest about thee the spirit of a Slave!' Nay, to the genuine poet, they deny even the privilege of regarding what so many cherish, under the title of their 'fame,' as the best and highest of all. Hear Schiller again:

'The Artist, it is true, is the son of his age; but pity for him if he is its pupil, or even its favorite! Let some beneficent divinity snatch him, when a suckling, from the breast of his mother, and nurse him with the milk of a better time, that he may ripen to his full stature beneath a distant Grecian sky. And having grown to manhood, let him return, a foreign shape, into his century; not, however, to delight it by his presence, but dreadful, like the son of Agamemnon, to purify it. The matter of his works he will take from the present, but their form he will derive from a nobler time; nay, from beyond all time, from the absolute unchanging unity of his own nature. Here, from the pure æther of his spiritual essence, flows down the Fountain of Beauty, uncontaminated by the pollutions of ages and generations, which roll to and fro in their turbid vortex far beneath it. His matter, Caprice can dishonor, as she has ennobled it; but the chaste form is withdrawn from her mutations. The Roman of the first century had long bent the knee before his Cæsars, when the statues of Rome were still standing erect; the temples continued holy to the eye, when their gods had long been a laughing-stock; and the abominations of a Nero and a Commodus were silently rebuked by the style of the edifice, which lent them its concealment. Man has lost his dignity, but art has saved it, and preserved it for him in expressive marbles. Truth still lives in fiction, and from the copy the original will be restored.'

'But how is the Artist to guard himself from the corruptions of his time, which on every side assail him? By despising its decisions. Let him look upwards to his dignity and the law, not downwards to his happiness and his wants. Free alike from the vain activity that longs to impress its traces on the fleeting instant, and from the querulous spirit of enthusiasm that measures by the scale of perfection the meagre product of reality, let him leave to mere Understanding, which is here at home, the province of the actual; while he strives, by uniting the possible with the necessary, to produce the ideal. This let him imprint and express in fiction and truth; imprint it in the sport of his imagination and the earnest of his actions; imprint it in all sensible and spiritual forms, and cast it silently into everlasting time.'*

Still higher are Fichte's notions on this subject; or rather expressed in higher terms, for the central principle is the same both in the philosopher and the poet. According to Fichte, there is a 'Divine Idea' pervading the visible Universe; which visible Universe is indeed but its symbol and sensible manifestation, having in itself no meaning, or even true existence independent of it. To the mass of men this Divine Idea of the world lies hidden: yet to discern it, to seize it, and live wholly in it, is the condition of all genuine virtue, knowledge,

freedom; and the end therefore of all spiritual effort in every age. Literary Men are the appointed interpreters of this Divine Idea; a perpetual priesthood, we might say, standing forth generation after generation, as the dispensers and living types of God's everlasting wisdom, to show it and embody it in their writings and actions, in such particular form as their own particular times require it in. For each age, by the law of its nature, is different from every other age, and demands a different representation of this Divine Idea, the essence of which is the same in all; so that the literary man of one century is only by mediation and re-interpretation applicable to the wants of another. But in every century, every man who labors, be it in what province he may, to teach others, must first have possessed himself of this Divine Idea, or, at least, be with his whole heart and his whole soul striving after it. If without possessing it or striving after it, he abide diligently by some material practical department of knowledge, he may indeed still be (says Fichte, in his usual rugged way) 'a useful hod-man,' but should he attempt to deal with the Whole, and to become an architect, he is in strictness of language, 'Nothing';—he is an ambiguous mongrel between the possessor of the Idea, and the man who feels himself solidly supported and carried on by the common Reality of things; in his fruitless endeavor after the Idea, he has neglected to acquire the craft of taking part in this Reality; and so hovers between two worlds, without pertaining to either.' Elsewhere he adds:

'There is still, from another point of view, another division in our notion of the Literary Man, and one to us of immediate application. Namely, either the Literary Man has already laid hold of the whole Divine Idea, in so far as it can be comprehended by man, or perhaps of a special portion of this its comprehensible part,—which truly is not possible without at least a clear oversight of the whole,—he has already laid hold of it, penetrated, and made it entirely clear to himself, so that it has become a possession recallable at all times in the same shape to his view, and a component part of his personality: in that case he is a completed and equipt Literary Man, a man who has studied. Or else, he is still struggling and striving to make the Idea in general, or that particular portion and point of it, from which onwards he for his part means to penetrate the whole; entirely clear to himself; detached sparkles of light already spring forth on him from all sides, and disclose a higher world before him; but they do not yet unite themselves into an indivisible whole; they vanish from his view as capriciously as they came, he cannot yet bring them under obedience to his freedom: in that case he is a progressing and self-unfolding literary man, a Student. That it be actually the Idea, which is possessed or striven after, is common to both. Should the striving aim merely at the outward form, and the letter of learned culture, there is then produced, when the circle is gone round, the completed, when it is not gone round, the progressing, Bungler (*Stumper*). The latter is more tolerable than the former; for there is still room to hope that in continuing his travel, he may at some future point be seized by the Idea; but of the first all hope is over.'

To be continued.

* *Ueber das Wesen des Gelehrten* (On the Nature of the Literary Man); a Course of Lectures delivered at Jena, in 1805.

(For the Zodiac.)

THE HOLY LAND—No. II.

THE JEWS—THEIR COSTUME, &c.

The aboriginal inhabitants of Palestine were divided into tribes; among whom were the Avim, who inhabited the south west, and were expelled by the Philistines; the Horites, who dwelt upon Mount Seir, and those "mighty men"—the giants, forming the tribes of Rephaim and Anakim. These were expelled by the Canaanites. Canaan had eleven sons, six of whom settled in Judea, and became the heads of as many different tribes.—These had evidently made some progress in the Arts, having built walled cities. They were divided into 31 principalities, having probably an aristocratic government. But in their turn, they were to be conquered by the all-subduing Jews. These had wandered in the wilderness for forty years, having been objects, at first of curiosity, and then of terror, to all the surrounding nations. They had been nourished by the "bread of Heaven," and cheered by the fountain, which at the touch of the Prophet gushed from the flinty rock. The celestial flame, and the wondrous cloud, had been their unerring guide, and God, even the God of Jacob, had descended in a chariot of flame, and from amidst the thunders of Sinai, had given to them his holy law, proclaiming himself "The Lord, their God." What marvel then, that the hearts of the nations were like wax before them, and that the Canaanites vanished from off the face of the promised land.

The Jews entered Palestine upon the south east, apportioning it among the different tribes, as has been already stated. Here then was fixed the seat of a mighty empire: here did they hold undisputed sway for many centuries, governed by wise and mighty rulers, and preserving both their national peculiarities, and their religion—the worship of the true God. While the darkness of Idolatry brooded over the surrounding nations, their prophets were like a long stream of living light, terminating in, and lost amid the brighter radiance of the Messiah.

Not only does the history of the Jews possess a peculiar interest, but a knowledge of their manners and customs is of great practical utility. We often see in communications from the East, descriptions of scenes which have fallen under the writer's observation, followed by the remark, that these objects and events had furnished a new proof of the truth of the Sacred writings, being in fact a key by which to unlock many hitherto obscure passages, and throwing over the whole a beautiful and touching simplicity. This we may also attain, by attentively examining the dress, habits, and customs of the Jews.

The costume of the Jews was very similar to that worn by the inhabitants of the East at the present day. The males wore their hair short, and it was considered effeminate to permit it to attain any length. Thus Paul, in his address to the Colossians, says, "If a man have long hair it is a shame," &c. Long beards, on the contrary, were highly esteemed, and so greatly were they revered, that it was considered an insult to touch them, except for the purpose of salutation. This explains the great insult offered by the princes of Ammon to the ambassadors of David, when they cut off their beards. The prophet Jeremiah, in predicting the desolations of Moab, says, "And every head shall be bald, and every beard clipt." A modern traveller states, that he saw in the East,

a man, who having received an injury in the jaw, refused to have his beard removed, and thus prevented the operation which alone could ensure his recovery. The head dress worn by the Arabs is extremely beautiful. It consists of a scarlet cap, surmounted by a blue tuft. The turban consists of several yards of very thin silk, or muslin, wound around the head at the base of the cap. These are of different colors; the descendants of Mahomet alone are permitted to wear green—the christians, blue. The principal garments are the tunic and haick, known in Scripture as the inner and outer garment. The tunic is a close frock, made with, or without sleeves. To it was attached the fringe, which the children of Israel wore as a memorial of the obedience which they owed to the law of God. The sleeves were loose, and could be easily shoved up to leave the arm at liberty. Hence the force of the passage, "The Lord hath made bare his holy arm." The hyke was usually about five yards in length and two in breadth, being similar to the plaid of the Highlander. It was thrown loosely about the body, and usually laid aside in the house. Allusions to this garment are very frequent in Scripture. When the tunic only was worn, they are spoken of as being without covering; thus Peter, when his Lord called him, is said to have been "naked," in other words, he had thrown off the hyke, the more easily to pursue his occupation.—Thus the blind man, "casting away his garment, followed Jesus," and Christ, "having laid aside his garments washed his disciples feet." This was secured by the girdle, which passed several times around the body. One end of it being double, served as the purse explaining the command, "Take no money in your purse." The feet were shod with sandals. These were pieces of wood fitted to the foot, and attached to it by leather thongs. The feet being thus left exposed, became dusty from travelling, and needed frequent washing. Hence, it was a necessary act of hospitality to offer water for the feet. It is said of Mary that "she washed the feet of Jesus with her tears," and of the latter, that he washed the feet of his disciples. Bathing was also very frequent. Thus Christ says, "He that is washed," that is, had bathed, "is clean, and needeth not, save to wash his feet;" these would become dusty in returning from the bath. Staves and embroidered handkerchiefs complete the dress. One peculiarity however, remains to be mentioned; interpreting literally the command, "Thou shalt bind these words as a sign upon thy hand, and they shall be as frontlets between thine eyes;" the Jews wrote certain passages of Scripture upon pieces of parchment, binding them upon the arm and forehead. That upon the arm was called *tefila-shel-id*. It was composed of two pieces of parchment, placed in a box, which was affixed to a piece of leather; strings were attached to this, which passed around the arm, and were tied in the form of a Hebrew letter. That for the head was called *tefila-shel-rosh*, consisting of four pieces of parchment, and also tied in the form of one of the Hebrew letters. These are still worn, it is said, by the European Jews at the time of prayer. Our Saviour did not reprove the Pharisees for wearing them, but for making them broad to attract attention.

HUMAN COUNTEANCE.

There is in every human countenance either a history or a prophecy, which must sadden, or at least soften, every reflecting observer. *Coleridge's Omnia.*

LECTURES ON COMPARATIVE ANATOMY AND ANIMAL PHYSIOLOGY,
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LECTURE VI.
ON THE ORGANS OF SUPPORT OF ACALYPHA AND ECHINODERMA.

Gentlemen.—The next class of animals, the skeletons of which we have to examine, is that denominated *acalyppha*. There are but few parts in this class of animals which we can consider as analogous to a skeleton; indeed, the skeleton in a solid state, consolidated by the carbonate of lime, scarcely occurs in more than two genera of acalyppha. In the *velella* and *porpita* we have examples, in this class, of animals with thin flexible calcareous skeletons. The greater number of them, as the physalia, berœ, and the various forms of the meduse, have scarcely any hard substance of this kind beyond a cartilaginous substance, which is placed generally in the form of curved columns round the entrance of the stomach. In the berœ, in the equorea, and in many of the minutest forms of the acalyppha, you could scarcely consider any part as analogous to a skeleton. These are those small gelatinous bodies that you see sometimes in the Thames, near Sheppy, so abundant in the water as to change its colour—they are part of the little animals which give the chief luminosity to the sea, and which you find so abundant in it, that hundreds of miles have been traversed, illuminated by them in one continuous line. Capt. Scoresby counted 100,000 of them in a cubic foot of water. In the Arctic seas they are the principal food of the Whales. These little animals have nothing that can be considered as a skeleton—no particle of the carbonate or of the phosphate of lime entering into their composition. But in the larger forms of the meduse, you find disposed around the circular part and lower centre, curved cartilaginous bands, which give support to the appendices that hang down from the centre of the lower part of the mantle. They are the fixed points by which the contractions of the mantle are directed to the lower centre—by which movements the meduse swims through the sea. They have no particular organs of motion different from the general convex fleshy mantle which covers all the other parts of their body. When you find those meduse bleaching on the sea-shores in the air, and in the summer's sun, on all parts of our coast, in incalculable myriads, you will find that the last part to dissolve away is this firm transparent cartilaginous texture around the mouth, forming the thickest part of the dried disc, which is left exposed by the evaporation of the liquid parts, the cellular texture remaining behind, which also soon disappears, and no trace of these soft stinging animals is at length to be perceived on the shores where they were strewn in thousands.

Now, although there are no parts of this density in the smaller and softer forms of acalyppha which I have mentioned, there are some of those animals which have cilia for progressive motion; they are the *ciliogrades* of Professor Blainville, and their cilia are always attached to a firmer portion of the general cellular substance composing the greater part of their body.

I had occasion to allude to this small ciliograde animal the *berœ* before, when speaking of the attachments of cilia in animalcules. We find in it

eight longitudinal bands extending from the mouth in the centre below, upwards to near the anus, which is diagonally opposite the mouth. These bands are of greater opacity, of a firmer texture, and are the parts upon which the vibratile cilia are disposed, serving thus as a support for the organs of progressive motion, and being, apparently, the firmest parts of the cellular texture of the body. These parts, though soft, may, in some manner, be looked upon as an elementary skeleton, like the corresponding parts in animalcules. The cilia of *bœ* are formed with rays like the fins of a fish, and are analogous to the feet of echinida.

The calcareous skeleton of the small group I have mentioned, comprehending the *porpita* and the *velella*, exists in the lower part of the mantle, which is the circular transparent disc, covering the upper part of the porpita. The porpita is like a velella, without its perpendicular crest. You will see here a firm, cellular, white, porous, calcareous disc, and this agrees with the skeletons of many of the zoophytes. In the *reteporæ*, in the *escharæ*, *flustræ*, *celleporæ*, and many similar genera, we find a similar cellular or reticulate structure of the skeleton; we find it here in the porpita from the Indian seas. In the *velella limbosa* we find the skeleton, though transparent, consolidated by earthy matter, and serving as a solid framework for the protection and support of the soft parts.

The skeleton of the *velella* consists chiefly of two plates, the lower one, of an oblong form, is disposed horizontally, as you will observe by these numerous specimens, which I collected last year on the coast of Cornwall. The lower one, of an oblong and concave form, is placed horizontally, and consists of several thin plates, disposed upon each other like the layers of a shell. From the concave centre of the lowest part of this plate, hangs down the circular tubular mouth of the *velella*. Around the mouth are disposed numerous small tubular suckers, resembling the feet of many radiated animals. Around the edge of this oblong plate hangs down the margin of the gelatinous blue-coloured mantle. Arising from the upper surface of this plate, and traversing obliquely its centre, there is a perpendicular very thin crescentic plate in the *velella*, which you observe in all the specimens that are before you, obtained both from the British and from the Indian seas. These plates, as you will perceive by looking through them, are distinctly composed of layers deposited by the gelatinous mantle, the curved margins of which layers are very visible. The skeletons appear to be extra-vascular and unorganized, although in the central part of the body, and completely surrounded by the fleshy substance, like the extra-vascular and unorganized corals which we were considering yesterday, and their softness and delicacy correspond with the softness and mobility of the embedding fleshy substance.

The skeleton of the next class of animals, the *echinoderma*, presents much more variety in its form, its consistence, and its nature, than the class *acalepha*. In some of the animals which we still place among the *echinoderma*, there is no solid part on the surface, and scarcely a trace of any kind, internally, of a skeleton. This may be stated of the actinia, of the sponculus, and several other forms of the *echinoderma*. We observe, however, that the actinia, or common sea-anemone, though it possesses no skeleton or solid part externally or internally, is still covered with a very dense, irritable, coriaceous integument, which protects all the delicate organization within. Many of the species

protect themselves further, by causing to adhere to their surface, by minute suckers disposed on their surface, particles of shells, particles of sand, gravel, and other heterogeneous substances. This extraneous covering which they cause firmly to adhere to their surface, as you can observe by attempting to tear one of these fragments from the animals, serves not only to protect them, but to conceal them; for being thus covered, you can scarcely distinguish them from the sand or gravel or shelly bodies among which they are placed. This is a mode of protecting the soft parts which we shall find abundantly illustrated and extended as we proceed through other classes of animals not gifted with a power of secreting for themselves, by their own vital energies, a skeleton of any kind, yet having instincts and apparatus for collecting foreign matter around them, and forming shields of various kinds. Worms, whose skeleton is still soft, we shall soon see form to themselves tubes of sand and shells, and various extraneous substances. There is an example of the same thing in the actinia—the common sea-anemone—but its tough, irritable, coriaceous integument is the part which is analogous to the more solid skeletons of most of the species of *echinodermata*.

Now in the family of the *holothurida*, the surface of the body is covered with the same coriaceous, tough, contractile integument, as that of the actinia. This is the case also with the sponculus, and most of the soft *echinodermata* animals. But in the *holothurida*, (or animals resembling the *holothuria*,) although there is no central solid skeleton supporting the body, there are solid internal parts which serve for the attachment of muscles. There are solid parts in the *holothurida*, as you see exhibited in the dissected specimens of the *holothurida* before you. They form a circle of five pairs of moveable pieces, disposed, like the alveoli and teeth of the *echinus* and *cidaris*, around the mouth. These five pairs of hard calcareous pieces, the only hard parts of this animal's body, resemble, in their general form, in their position, in the manner in which they are connected together, and with the muscles of the mouth, the complicated apparatus of teeth and alveoli which we find in the common *echinus*, and in the *cidaris*. Their composition and mode of growth are the same. They give a solid attachment to the muscles of the mouth, and they probably serve to subdivide the food of this highly-organized animal.

The *holothurida*, like the *echinodermata*, which have teeth, may be ascertained, by the contents of its stomach and intestines, to feed upon the minuter testaceous and crustaceous animals. This is apparent from the considerable quantities of shells and sand and particles of gravel which you see filling the intestine in these dissected specimens. The solid parts surrounding the mouth of the *holothurida* serve also for the attachment of the longitudinal muscular bands of the body, and support the long ramified tentacula which are extended around the mouth of the animals, and which can be forcibly contracted and entirely concealed within the body.

In considering the skeletons of the zoophytes—the *polypiferous* animals—we saw that the greater number of them were fixed to a point for life, and that the animals could not swim to and fro in search of their food in the sea. This appears to have been also the case with vast tribes of the *echinodermata*, which have once inhabited our seas in incalculable numbers. The immense family of *echinodermata* denominated *crinoidea*, was composed of fixed animals of this kind, and which were closely allied to

the *euryale*, *comatula*, *ophiura*, and many others which at present inhabit our own seas, but they differed from all those in being fixed by a peduncle to the solid rock, growing up by a stem, and ramifying, and the ramified portion having much of the organization of the *comatula* and *euryale*. We see that those animals have adhered to the rock, by finding, in a fossil state, many remnants still adhering by an expanding circular disc; the first or lowest ring formed adhering to the rock from which they originally extended their body, like the existing *pentacrinus* of the American and British seas.

The various forms of encrinites with which you are familiar, occurring so abundantly in ancient strata, and particularly in the oldest limestone formations—the limestone belonging to the transition formations,—abound with singular forms of these fixed radiated animals, amongst the oldest inhabitants of this globe with which we have now the means of becoming acquainted. The bodies you now look upon, composed of detached joints, some circular, some pentagonal, are portions of the stem and branches of the *pentacrinites* and other *crinoidea*. Various other forms belong to this almost extinct tribe. We have at this time, living in different parts of the ocean, and even on our own coast, two animals belonging to the genus *pentacrinus*—the *pentacrinus Europæus*, and *p. caput medusa*. They are precisely of the character which we have every reason to believe has belonged generally to this family, possessing a peduncle, and that calcareous peduncle being moveable, and found attached to rocks or plants at the bottom of the sea. One has been found in the Bay of Cork in Ireland. In ancient seas they were so abundant, that we find entire rocks and strata composed of their remains. In this mass of limestone you can scarcely see anything but fragments of the fixed, jointed, *echinodermata* belonging to this crenoid family. Each of these forms of the *crinoidea* possesses a mode of formation peculiar to itself, both in the forms of the several pieces, and in the mode of their union, particularly at the upper extremity of the peduncle or axis, the body of the animal from which the radiated extremities diverge.

The forms and nature of the skeleton of these animals offer an interesting subject of study for the geologist, because of the numerous entire families of them which occur only in a fossil state, and in the oldest rocks. There can be no doubt that they have all contained the phosphate, along with a much larger proportion of the carbonate of lime,—that they have been unorganized skeletons which have been formed, by successive depositions around each joint, from an exterior enveloping animated fleshy covering, as in the existing *pentacrinus* of our own seas. They appear as if formed by the union and consolidation of all the pieces which enter into the formation of each ring, or segment of the asterias and other radiated-existing animals.

On examining the arrangement and the forms of the separate little pieces which surround each segment or ring of the *stellerida*, we observe great regularity and constancy in the disposition of all the parts. They are composed chiefly of the carbonate of lime, but they contain also a little of the phosphate, as shown by Hatchett. The phosphate of lime has been found by the recent analyses of Stoltze, to be in greater proportion in the solid forms of the skeleton we meet with in the *echinida* than in the *stellerida*; but still the phosphate of lime does exist in the solid pieces of this asterias which I hold in my hand. When we examine the

disposition of the several parts of the external skeleton of the asterias or the ophiura, you perceive that they are placed in numerous contiguous circles round the divisions of the body—those divisions through which the intestines and the ovaries extend in the asterias. These circles or rings are composed generally of eight pieces, but the number of segments or rings varies according to the age or the state of development. Eight are counted in the case of the animal I hold in my hand—the *asterias aurantiaca*, so minutely described by Tiedemann and by Meckel. These eight pieces are disposed in a circular form around the arms or divisions of the body. Sometimes these rings are extremely numerous. In the specimen I have here, there have been counted eighty rings in each ray. There are five rays here, as there are in the greater number of the species of asterias. It is thus apparent, then, that there are about from 640 to 700 separate pieces in each ray of the body; and in the whole about from 3,200 to 3,500 separate pieces, surrounding the rays in this five-rayed species. Now you will observe, that the larger pieces are generally placed towards the lower part of each of the rays of the body along the sides of the ambulacra. They form the sides of the rays; and in the centre below we find, between the lateral rows of pieces, numerous oblique circular perforations—through which extend, in the living state, the minute circular tubular fleshy arms by which the animals fix themselves or move to and fro. The perforated portions of the skeleton (which you perceive is of considerable density) occupy these central grooves, and are denominated the ambulacra, so that you observe here five ambulacra, one extending along the base or lower part of each of the divisions. The stronger lateral plates give origin generally and support to spines which project from their surface. These spines are moveable, and, no doubt, frequently used in progressive motion as well as in defence. In the contracted state of the animal these spines along the sides of the ambulacra being brought near to each other below, protect the extremities of the arms, which are retracted into their small perforations. The upper part of the body of these animals has calcareous portions, generally smaller, and thrown to a greater distance from each other. The integument is extremely coriaceous. It is capable of great contractility when irritated. It is capable of being extended to a considerable degree by the water taken in for respiration. It is capable of great extension, for containing the reproductive gemmule-sacs, called the ovaries. But when in the distended and translucent state, if irritated or injured, you will soon observe it contract and become opaque at the part touched. Looking at the upper surface of this irritable integument, you will see it is traversed by numerous white-coloured opaque lines. These are rendered firm and opaque by the quantity of carbonate and phosphate of lime which this reticulate part of the integument contains. Between two of the legs or divisions of the animal you will observe on the upper surface a circular, small, convex, solid body, which on being examined with a lens, has much the appearance of the large meandrina—the brain madreporite which we had on the table yesterday. It encloses in its inner surface a sac, which contains a thick grumous substance, which is found by analysis to consist of carbonate and phosphate of lime, but no urea. Urea was expected to be found in it in consequence of distinct organs for secreting that substance in other animals being found. There is a glandular sac observable in it, which was

thought to be designed to separate from the nutritious fluid circulating in the vessels around it, the calcareous substance which was to form the skeleton. This was the opinion of Tiedemann. Meckel, however, from observing that this earthy matter in other animals is formed at the points of the body where it is deposited, and that this calcifiant glandular sac is least developed where the earthy skeleton is largest, considers it as not subservient to the separation of the earthy matter for the skeleton, but that it is an organ destined to excrete something from the bloodvessels with which it is connected, rather than to separate those earths to form the skeleton.

The divisions of the body in the animals of which I have been speaking, belonging to the genus *asterias*, contain, as I have mentioned to you, the viscera of the animal, particularly the intestine and the ovary, one of these on each side of each division; so that in this specimen with five divisions there are ten ovaries and ten cæca. But in the animals I now hold in my hand, the ophiuræ, which so much resemble the asterias that formerly they were placed in the same genus, the divisions of the body do not contain the viscera. The viscera in them are confined to the large central disc, from which radiate the divisions of the body, and those divisions are more like true extremities for progressive motion.

In examining the pieces which surround these extremities of the ophiura we find the arrangement, and even the number of the pieces, to correspond singularly with those composing the rings or segments of the asterias; and, as you observe in this *ophiura, echinata*, the pieces have often spines attached to their outer surface. These external calcareous spines in the *stellerida* are generally attached by moveable articulations to prominent tubercles, as in the more solid forms of *echinida*, and in all these animals they appear to be formed in the same manner by the transparent investing membrane, without possessing any internal means of growth or repair. The spines on the soft backs of the asteridae are often extremely numerous and minute, and elegantly arranged in groups; they may prove a means of defence by being collected closely together during the contracted condition of the skin. Sometimes they are white, and sometimes they have colours which contrast beautifully with the deep hues of the skin. They have no apparent source of nutrition at either extremity, or in their middle; but they appear to grow, like shells, by additions to every part of them which is next to the enveloping fleshy substance. The central disc of the ophiura is surrounded by pieces like those which surround the central body of the asterias; but here they are large and more solid. There are ambulacra in the ophiura as well as in the asterias, and those ambulacra are perforated in the same way, for the feet by which these little animals move to and fro. Even the ramifications of the body of the euryale are surrounded with rings, much more complete than in the case of the asterias, and more complete than in most of the ophiuræ, which remarkably agree with those that surround the extremities of the asterias, but the component pieces are observed gradually to ankylose, and to meet above, where there is a deficiency occupied by soft skin in the asterias. Thus we are gradually led to the simplest form of the asterias in passing upwards through all the jointed and radiated forms of the echinoderma. We saw the jointed, ramified, and fixed skeletons of the coral-lines, dichotomariae, and other calcareous zoophytes, which led us

naturally to the fixed and ramified skeletons of the numerous extinct forms of crinoidea, and to the existing genus *pentacrinus*. These skeletons, like that of the *isis*, were formed by depositions of earthy matter from an enveloping fleshy crust, which we can trace through all the higher forms of echinodermæ. The solidity of the joints in the family of crinoidea, accords with their fixed condition at the bottom of the sea, and corresponds remarkably with the condition of those joints in the polypiferous animals. But the central cavity of the joints enlarges, and the segments consequently become more flexible and soft, as we ascend to simpler forms in passing up through the *comatulae*, the *euryale*, the ophiuræ, and all the forms of *asterias*. The internal cavity thus developed in the centre of the skeleton becomes the seat of organs more and more complicated and important, and the outward appendices and ramifications become less and less numerous and subdivided. The component pieces or elements of the original solid segments are thus enlarged, detached, and kept apart, and admit of free motion upon each other. A greater development is thus allowed to the important organs of digestion, generation, circulation, and respiration, so complicated in the asterias. The elements of the skeleton in higher forms, in place of constituting a mere solid axis of support, as in the crinoid family, are now employed to consolidate the walls of an increasing abdominal cavity, and the original numerous ramifications, which composed nearly the whole animals, are now diminished to mere spines for defence thrown over the exterior of the general cavity. The component pieces ossify and expand around this abdominal cavity, so as to compose an exterior shell, like that of the articulated and molluscos classes, in which, however, the original pieces are still perceptible, and necessarily kept asunder, to allow of the requisite growth and expansion of these external globular and unorganized coverings. In rising from the depressed and even divided forms of the *scutellæ*, so closely allied to some of the *asteriae*, to the more convex and globular forms of the *echinida*, the solidity of the whole exterior skeleton increases. The component pieces or external plates become thicker, stronger, and more artfully united in the construction of the edifice, and the exterior spines become larger and more solid. The forms of those skeletons of the solid *echinida* which now exist, would appear much more isolated, were we not familiar with many of the fossil forms so abundant in our chalk formations, which often present the intermediate links of gradation which have disappeared from the present surface of our earth. By the lengthening of the axis of the globular *echinida*, and the softening of the exterior shell, nature has arrived at the forms of the various *holothuridæ*, and these lengthened, cylindrical, and soft echinoderma lead us naturally to the worms at the bottom of the articulated division of the animal kingdom.

(To be continued.)

CRITICISM.

Many of our modern criticisms on the works of our elder writers, remind me of the connoisseur, who, taking up a small cabinet picture, railed most eloquently at the absurd caprice of the artist in painting the horse sprawling:—"Excuse me, sir," replied the owner of the piece, "you hold it the wrong way—it is a horse galloping."—Coleridge.

NEW TRUTHS.

To all new truths, or renovation of old truths, it must be as in the ark, between the destroyed and the about-to-be renovated world. The raven must be sent out before the dove, and ominous controversy must precede peace and the olive-wreath.—*Id.*

METEOROLOGICAL TABLE FOR NOVEMBER, 1836,
KEPT AT THE ALBANY ACADEMY.

Days Month.	MORNING.			EVENING.			THERMOMETER.			WINDS.			WEATHER.		RAIN GAGE.	REMARKS.
	Barometer.	Attached Thermom.	Wet Bulb Thermom.	Barometer.	Attached Thermom.	Wet Bulb Thermom.	6½ A. M.	3 P. M.	9 P. M.	Mean.	8 A. M.	Noon.	10 P. M.	Morning.	Evening.	
1 30°25	34°25	32.	30°13	39°	33.25	24	42	32	32.83	ENE	SW	SW	Clear.	Clear.		
2 29.99	34.	31.50	29.88	39.25	37.	25	44	42	38.83	E	SE	NW	do	Cloudy.		
3 29.87	39.75	37.	29.95	39.	34.	36	40	36	36.93	N	NE	N	Cloudy.	do		
4 29.99	38.	34.	30.00	39.50	32.	30	39	35	34.50	N	NW	NW	do	do		
5 30.03	37.75	34.	30.03	38.50	29.50	29	40	32	33.67	NW	WNW	W	Clear.	Clear.		
6 29.97	37.	34.25	29.98	39.50	33.50	29	44	32	34.17	N	N	N	do	do		
7 30.10	38.75	30.50	30.075	40.	34.50	24	44	38	37.00	W	SW	SW	do	do		
8 30.14	38.50	37.	30.21	42.75	35.	34	51	38	39.83	SE	NW	SE	do	do		
9 30.48	37.50	31.50	30.52	41.50	36.	27	50	38	39.00	SE	E	SE	do	do		
10 30.52	37.75	35.	30.37	44.50	43.	31	49	44	43.83	SE	SW	SW	Cloudy.	do		
11 30.18	46.	47.75	30.01	50.	54.	46	54	56	53.50	SSW	SW	SW	do	Cloudy.	{ 2.02	Rain, A. M.
12 29.70	54.75	57.	29.80	54.75	48.50	55	62	50	53.50	SW	SW	NW	do	Clear.		Heavy thunder shower.
13 .....	.....	30.10	46.50	36.75	42	46	34	39.83	NW	NW	NW	Clear.	do			
14 30.10	43.50	39.50	29.98	43.	37.	37	42	34	37.50	S	S	S	Cloudy.	Cloudy.	{ 0.55	Rain.
15 29.81	42.	40.	29.79	43.50	40.	36	42	40	42.50	N	NNW	NNW	do	do		Rain.
16 29.91	41.50	39.50	29.90	42.25	36.	55	36	36	39.17	NE	NE	W	do	do	0.16	Rain.
17 30.06	40.	37.	30.165	41.	36.	37	40	35	37.00	NW	NW	NW	do	do		
18 30.375	37.50	34.	30.44	39.50	32.	36	41	29	33.50	NW	NW	NW	Clear.	Clear.		
19 .....	.....	30.48	36.	30.	25	42	32	35.17	NW	SE	S	do	do			
20 30.34	38.50	37.50	30.21	42.	41.	38	48	45	45.17	SW	SW	S	do	do		
21 29.74	47.	49.	29.64	48.75	49.	47	53	47	48.17	SW	SW	SW	Cloudy.	Cloudy.	0.56	Rain during day.
22 29.88	44.	41.	29.80	44.	37.50	42	45	41	40.83	SW	SW	W	Clear.	do		
23 29.56	42.	36.	29.42	40.50	32.	31	40	36	35.67	W	W	W	Cloudy.	do	0.02	Slight flurry of snow.
24 29.46	38.	30.	29.56	37.	27.	31	34	27	28.83	NW	NW	NW	Clear.	do		
25 29.61	39.	24.	29.73	29.	18.	20	19	18	18.33	NNW	NNW	NNW	do	do		
26 29.77	26.	23.50	29.82	28.75	....	16	25	23	22.17	NNW	NNW	NNW	do	Clear.		
27 30.05	27.50	....	30.10	32.	....	21	30	24	24.83	NE	N	NE	do	do		
28 30.15	27.	....	29.97	31.	....	20	33	30	29.17	NNE	NNE	N	Cloudy.	Cloudy.		
29 29.775	31.	....	29.675	32.	....	29	33	30	30.83	NNW	NE	NE	do	Clear.		
30 29.60	32.	....	29.56	35.	....	30	37	35	34.33	S	S	NW	do	Cloudy.		

RESULTS.

External Thermometer.

Mean of first half of the month, 39°79

Mean of second half of the month, 35.54

Mean of the whole month, 36.66

Fair days 15½; cloudy 14½; rain on 6 days; snow on 1.

Rain Gage, 3 inches and 31-100ths.

Highest deg. 62; lowest 16.

Greatest monthly range 41.

Warmest day, 12th; coldest day, 26th.

Winds.—North 6 days; north-east 2½; east 1; south-east 2½; south 2½; south-west 6; west 2½; north-west 7½. Prevailing wind, *north-west*.

Mean of Barometer, corrected for Capillarity, and reduced to 32°.

Morning, 30.600 inches.

Evening, 29.995 do.

Maximum, 30.548 do.

Minimum, 29.444 do.

Monthly range, 1.504 do

Dew Point.

Mean in morning, 30°12

Mean in evening, 32°29

Mean force of vapor, 0.209 inches.

Mean deg. of dryness, 8°19 thermometric scale.

do. moisture, 762. nat. scale Hygrom.

Least degree of moisture observed, 431.

Amount of evaporation, 1.950 inches.

Weight of Vapor in a cubic foot.

Mean, 2.451 grains.

Maximum, 5.511 do.

Minimum, 1.586 do.

TABLE TALK—No. 2.

By the late "Elia."

Amidst the complaints of the wide spread of infidelity among us, it is consolatory that a sect is sprung up in the heart of the metropolis, and is daily on the increase, of teachers of that healing doctrine, which Pope upheld, and against which Voltaire directed his envenomed wit. We mean those practical teachers of optimism, or the belief that *whatever is, is best*—the cads of Omnibuses, who from their little back pulpits—not once in three or four hours, as those proclaimers of "God and his prophet," in Mussulman countries; but every minute, at the entry or exit of a brief passenger, are heard, in an almost prophetic tone, to exclaim (wisdom crying out, as it were, in the streets,) **ALL'S RIGHT**.

Advice is not so commonly thrown away as is imagined. We seek it in difficulties; but, in common speech, we are apt to confound it with *admonition*: as when a friend reminds one that drink is prejudicial to the health, &c. We do not care to be told of that, which we know better than the good man that admonishes. M. sent his friend L., who is no water-drinker, a two-penny tract

"Against the Use of Fermented Liquors!" L. acknowledged the obligation as far as to *two-pence*. Penotier's advice was the safest after all:

"I advised him—"

But I must tell you. The dear, good-meaning, no-thinking creature, had been dumbounding a company of us with a detail of inextricable difficulties, in which the circumstances of an acquaintance of his were involved. No clue of light offered itself. He grew more and more misty as he proceeded. We pitied his friend and thought, "God help the man, so wrapt in error's heedless maze;" when, suddenly brightening up his placid countenance, like one who had found out a riddle, and looked to have the solution admired, "at last," said he, "I advised him—"

Then he paused, and here we were again interminably thrown back. By no possible guess could any of us aim at the drift of the meaning he was about to be delivered of. "I advised him," he repeated, "to have some *advice* upon the subject." A general approbation followed; and it was unanimously agreed, that, under all the circumstances of the case, no sounder or more judicious counsel could have been given.

ATHENEUM.

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